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CIRCULATION ELEMENT
OF THE
COUNTY OF SACRAMENTO
GENERAL PLAN

December 15, 1993

County of Sacramento

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**CIRCULATION ELEMENT
SACRAMENTO COUNTY GENERAL PLAN**

<u>ADMINISTRATION</u>	<u>PROJECT STAFF</u>	<u>INTERNS</u>	<u>SUPPORT STAFF</u>
Tom Hutchings Robert Sherry Rob Burness	Steve Tracy Darryl Goehring Mike Winter Celia Yniguez	Michele Ball Melinda Grosch Tyson Holmes Amelia Hutchinson Leslie Ivy Jim Jester Eric Kishi Wingate Lew Ron Milan Laura Niles John Reynolds Jessica Vanderpool Janis Wade	Lorena Amaro Jean Brandon Kim Gamel Tim Imai Ray Onga Lin Toyama

For information about this element, contact either:

Steve Tracy, Associate Planner
Sacramento County Planning and
Community Development Department
827 7th Street, Room 230
Sacramento, CA 95814
(916) 440-6141

or Michael Winter, Assistant Planner
Sacramento County Planning and
Community Development Department
827 7th Street, Room 230
Sacramento, CA 95814
(916) 440-6141

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SACRAMENTO COUNTY GENERAL PLAN

CIRCULATION ELEMENT

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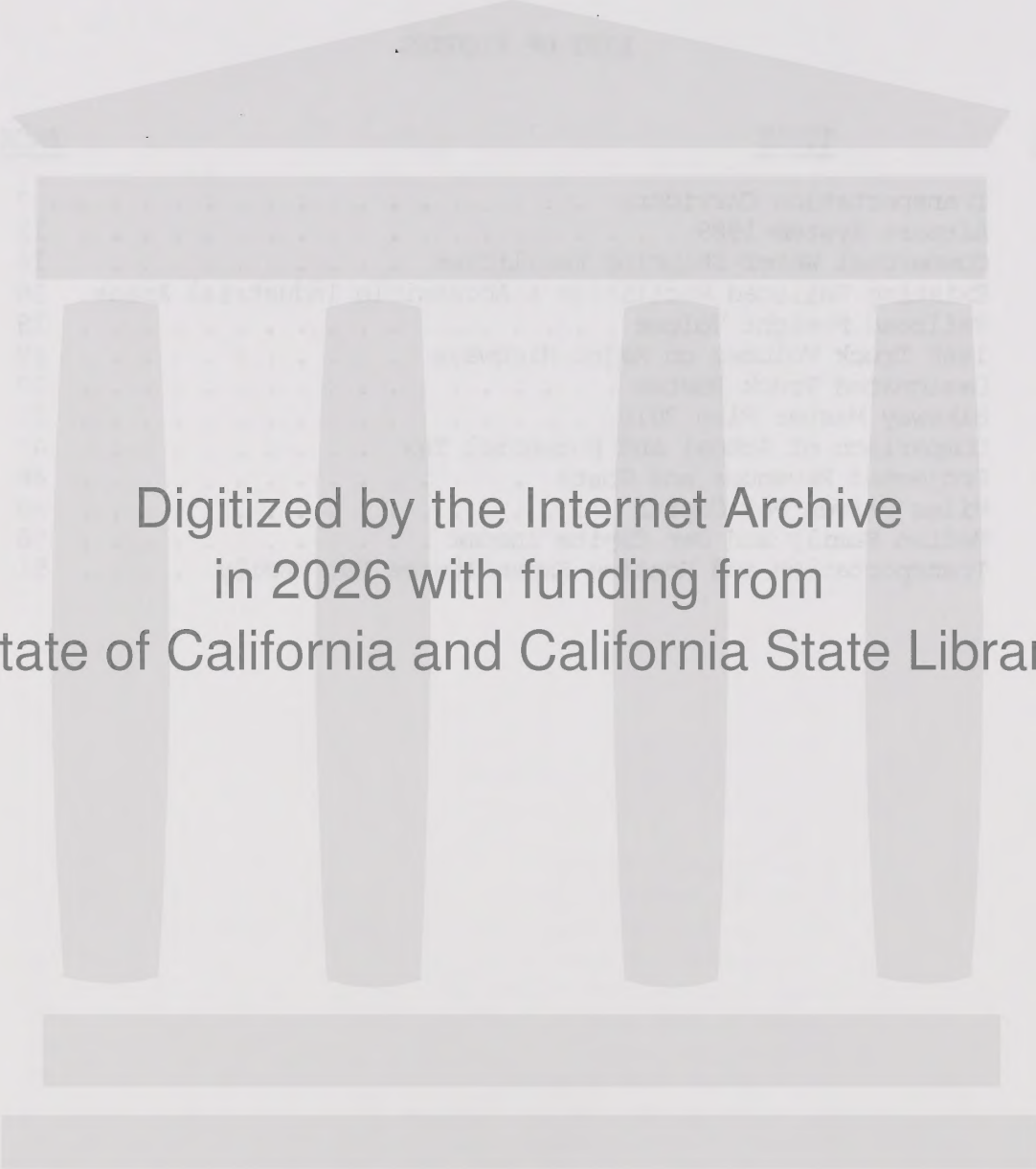
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SACRAMENTO COUNTY GENERAL PLAN CIRCULATION ELEMENT

Section I

STATEMENT OF INTENT

The advent of the automobile in the early part of this century brought tremendous mobility to the average citizen of the United States. The ability to travel great distances provided the opportunity to live miles from the workplace. The pattern of settlement in the United States quickly changed as the automobile became commonplace, and more people moved to homes far from their workplace, on land cheaper than land in the central city. That pattern remains largely the same today.

Opportunities have their costs. Beyond its purchase and operating cost, the automobile imposes costs for road building and maintenance, energy resources, land resources, and environmental damage. The quality of life, buoyed so much by the automobile, deteriorates when too many cars crowd the road. Air quality, commute time, and energy resources are affected. The situation is critical in many large metropolitan areas where traffic delays are rising, and air quality is falling.

Sacramento County has experienced the same trends as other cities in the United States, but the situation here is not yet as critical as in many other metropolitan areas. However, the trend in this rapidly growing county is clear. Our roads will become more congested, and air quality will continue to worsen.

Transportation planning has traditionally focused on providing roadways for growing automobile demands. This Circulation Element recognizes the validity of that approach, but it stresses the importance of a more balanced planning philosophy; one that will start to shift more emphasis toward alternatives to the automobile. This requires improving those alternatives through regional coordination, improved funding, better land use and design, and fair pricing. This will help restore the competitive equilibrium between transit and private automobiles. Transit should offer greater accessibility, speed, and convenience as a consequence. Pedestrian and bicycle travel will become safer and more useful for everyday tasks such as travel to work and shopping.

This Circulation Element provides a Transportation Plan that will meet these goals. Traditional land use planning separates different land use types. Yet, the success of transit, pedestrian, and bicycling alternatives is largely dependent on the geographical integration of places of residence, work, and retail commerce. This Element provides for walking, biking, and transit facilities to link destinations, and a land use plan which promotes mixed use development which situates workers near jobs and shoppers near stores.

This Plan emphasizes four major themes:

Air Quality: Achieving air quality goals is a theme that runs throughout this General Plan. It is given significance in this Element because so much of our

air quality problem is due to our automobile oriented transportation system. Therefore, this Element stresses the point that transportation planning in Sacramento County is to be conducted in a manner that promotes air quality.

Balance: An efficient transportation system offers to the average citizen of Sacramento County several alternatives to the automobile. The system described in this Element will provide more balance by increasing the emphasis on transit, walking, and bicycling. Further, the system will be developed with a system-wide perspective. Decisions to expand any portion of the transportation system should be made only after careful consideration, and implementation of a full array of options to meet transportation needs in ways that are not in conflict with air quality goals.

The transportation system outlined in this Element emphasizes high-frequency transit service within a defined road network. Under some circumstance transit, good land use, and trip reduction programs may reduce road demand to levels that will eliminate the need to complete that road network within the time frame of this General Plan.

Transportation-Land Use Coordination: Policies of the Transportation and Land Use Elements must be coordinated for the transportation system to function efficiently. While residents of low density suburban areas will still be assured "lifeline" transit service, this Element reserves high quality transit service for areas with land uses that generate sufficient ridership to support the service. The Land Use Element directs higher density uses to corridors along the trunk and feeder line networks and proposes land use patterns that support transit usage. Good coordination between these Elements will increase the likelihood of creating an efficient, balanced transportation system in Sacramento County.

Transportation Funding: Transportation capital, operation, and maintenance funding is severely limited. As a consequence, transportation funding must be governed by the following principles:

- ° New roads should be paid for by the new developments that benefit.
- ° Existing excess road capacity should not be granted to new users, rather they should pay for the existing capacity just as they would for new roads.
- ° Road maintenance should be paid for by road users.
- ° Transit should be broadly funded since it serves community goals such as air quality and congestion relief.
- ° The community should not accept outside funding for transportation projects that are inconsistent with local priorities.

Conclusion: The goal of this Circulation Element is not to remold the transportation pattern of Sacramento County overnight, but rather to redirect and to expand the resources which are available and begin to build a pattern that provides lasting solutions to some of the major problems now facing the community.

SACRAMENTO COUNTY GENERAL PLAN

CIRCULATION ELEMENT

Section II

TRANSPORTATION PLAN

INTRODUCTION

DESCRIPTION AND PURPOSE OF THIS PLAN

California law requires that the projects shown on a Circulation Element Plan are consistent with the Land Use Element and can be funded within the planning period. The Transportation Plan that accompanies this Element has been prepared to meet these requirements. A grid of major streets and transportation corridors is shown in the existing urban area (see the large Transportation Plan map which accompanies this Element). In the urban fringe areas that are designated for near-term development in the Land Use Element, a similar grid that is expected to be developed within the next 20 years is shown. The road portion of this network is fundable within the time frame of this Plan through established funding sources. The transit component can be provided also, although the intensity of service and the transit technology employed (light rail or bus) will vary depending on the development of funding sources and transit-supportive land uses.

In the urban fringe areas that are designated for Urban Reserve or may be suitable for long-term development beyond the time frame of this Plan, a less intense grid of post-2010 major streets is shown. This does not imply an intent to provide this level of road improvements within the time frame of this Plan. Nor is adequate current funding implied by this designation, although established funding sources will be able to provide for much of this road network whenever these areas are developed. The purpose of designating these long-term roadways is to maintain the ability to plan for the ultimate urbanization of these areas. This allows Sacramento County to control setbacks and require offers of dedication of the appropriate width for future roads in these areas.

Some areas beyond the urban fringe are never expected to be developed with urban uses and are designated for agricultural or agricultural-residential use in the Land Use Element. In these areas, a low-intensity post-2010 major road grid is shown which will be sufficient to carry traffic generated by buildout of the designated rural land uses in these areas beyond the time frame of this Plan. Some unbuilt major roads in these rural areas which were designated for long-term development on previous Major Street and Highway Plans have been deleted because they are not consistent with current land use or funding policy. A network of existing two-lane rural collector roads is shown. No major street status is implied by this designation. However, any development

that occurs along these rural collectors should provide broad setbacks and offers of dedication for future right-of-way. This will provide an option for road or transit service along these alignments at some time in the distant future if that becomes appropriate.

FACILITY CATEGORIZATION

In addition to the existing transportation system, the Transportation Plan of the Circulation Element indicates road and transit improvements for Sacramento County for the next 20 years and beyond. Future transportation facilities are categorized according to three factors:

1. Funding
2. Timing
3. Type of project

The designations indicated for each facility on the Transportation Plan depend on these factors, which are discussed below.

Funding: The Circulation Element must provide for the facilities necessary to implement the Land Use Element. However, the Transportation Plan must be economically realistic and show a transportation network that can be funded during the life of this General Plan. Thus, realistic funding mechanisms must be associated with the improvement projects that are a part of the Plan. For a complete discussion of road funding, see Section III.

The designations shown on the Transportation Plan depend in part on the status of funding for the project. In addition to having funded or unfunded status, projects are given a priority which implies the likelihood of future funding.

- Funded and Scheduled: These routes have improvements planned and funding secured. Completion of the projects is assured.
- Unfunded, High Priority: These improvements are high priority. Funding is not yet secured, but is anticipated within the timeframe of this Plan through established mechanisms. No specific engineering plans for improvement exist at this time, however the routes will be improved within the planning period.
- Unfunded, Long-term Routes: These routes lie in areas that may be developed beyond the time frame of this Plan. As future development occurs, these routes will be necessary. These routes are without specific planned improvements and no current funding ability is implied.

Timing of Projects: Projects are further classified according to timing:

- Pre-2010. Projects scheduled prior to the year 2010. In some instances the year of construction is known. Other projects are simply expected to be constructed sometime during the 20 year period. Some added capacity may be necessary prior to the year 2010 for roadways shown for post-2010

improvements. If such a need is determined, then some interim improvements will be viewed as consistent with this plan.

--Post-2010. Road segments or projects which are not scheduled or necessary in the next 20 years. Future right-of-way (ROW) and setbacks should be preserved to hold options open for road or transit improvements beyond the 20 year planning horizon. This is necessary due to the difficulty of establishing ROW if lot patterns and development do not reflect wider streets.

Type of Facility: The facilities presented on the Transportation Plan are for roadways, transit, Transportation Corridors, and related facilities (interchanges, terminals, etc.). Transportation Corridors are designated without specifying the transportation mode operating in the corridor. The roadway terms are consistent with the roadway designations in the Sacramento County Code and those used by the Sacramento County Public Works Department. Local bus routes, neighborhood streets, and other minor components of the road and transit systems are not shown. Public Utilities are mapped and discussed in the Public Facilities Element of this General Plan.

FACILITY DEFINITIONS

Transportation Corridors: Transportation corridors are intended to be the backbone of a regional system linking high quality transportation with high intensity land uses. The Land Use Element contains a discussion of the program to channel high intensity development along these corridors. Although transportation corridors may include major streets of various types, the emphasis will be on transit: LRT, express bus, or local bus. High frequency service and good linkage throughout the system are essential in these corridors. High occupancy vehicle (HOV) lanes and bikeways may be included in these corridors. Pedestrian access along these corridors and to them from nearby areas is critical. Two types of corridors are designated on the Transportation Plan (see Figure II-1). They differ primarily in the nature of the transit service that will be provided, as discussed below. Short shuttle lines offering the same level of high quality transit service may not be shown on this map but will be considered "transportation corridors" when evaluating development projects.

Trunk Line Network: The line-haul express regional transit system. This system will generally be LRT, but may also consist of high quality bus service with 15 minute frequency.

Feeder Line Network: A high quality surface street bus system feeding the regional trunk lines with 15 minute frequency. This service is more local in nature, making more frequent stops than trunk line express service.

Roadways: Five major street and highway capacity designations are shown on the Transportation Plan. State freeways are shown, along with surface street arterials, thoroughfares, and rural collectors. Local roads with access limitations are shown on an inset map on the Transportation Plan. Descriptions of these road types and other minor components of the road network follow.

Local Streets: The small streets running through neighborhoods which carry only the most local traffic. Local streets are not shown on the Transportation Plan.

Collectors: The next step up, two lane roads, carrying local traffic to or from arterials. Except for selected urban collectors, these streets are not shown on the Transportation Plan.

Rural Collectors: Two-lane roads in rural areas. These roads are intended to have ROW sufficient for 4 lanes to maintain the potential for capacity increases in the post-2010 planning period.

Arterials: Major four-lane streets.

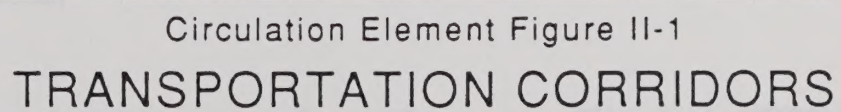
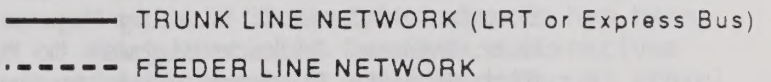
Thoroughfares: Six-lane high volume streets.

Freeways: Freeways designated on the Plan are state-operated, limited access facilities. Freeways are intended primarily for inter-regional travel, but also provide intra-urban access.

Details on width, lanes, and features of the roadways shown on the Transportation Plan are indicated in the table below. The Transportation Plan Map shows roads with community-wide significance. Some wider roads that serve as collectors by giving large development projects traffic access to the community-wide network may not be shown on the Transportation Plan.

<u>DESIGNATION</u>	<u>ROW (ft)</u>	<u>LANES</u>	<u>COMMON FEATURES</u>
Freeways	varied	4-10	state-operated, with controlled access.
Thoroughfares	108	6	median island.
Arterials	84	4	turning lanes.
Urban Collectors	up to 84	2	part of regional network.
Rural Collectors	84	2	2 lane road, arterial width ROW and setbacks.

Limited Access Roadways: County declared freeways are streets with limited access designed to decrease driveway related activity and improve traffic flow. This term has no direct implication regarding facility capacity.



Circulation Element

A multimodal alternatives analysis is being conducted by Caltrans on the Interstate 80/Route 102 corridor. The engineering feasibility of placing a transportation facility in this corridor has already been determined. The types of alternatives now being evaluated are similar to those listed above for the SATS. The objective is to identify the most effective facility and service alternatives for accommodating growing suburb-to-suburb, suburb-to-central city, and interregional travel in the northern and northeastern portions of the Sacramento Metropolitan Area.

Staff from the County's Planning and Public Works Departments will participate in these studies. If either study results in the selection of a particular transportation improvement scenario, County staff will evaluate the air quality and land use implications of the proposed improvements and consider adjusting the Transportation Plan accordingly.

GENERAL DESIGN STANDARDS

The design standards for streets, highways, and transit facilities are carefully established on the basis of assumptions about their use, and the surrounding land use. Variations in design are possible through a variety of mechanisms such as variances, exceptions, or special development permits. However, to encourage transit oriented development the County will establish new standards which apply to appropriate development projects, thus avoiding an excessive number of applications for special permits.

The transit oriented development may require variation of standards in a number of areas including street width, setbacks, bike lanes, and parking standards. Such a community might accommodate narrower streets, shorter setbacks, wider bike lanes, and fewer commercial parking spaces than currently required. Changes in these standards will encourage developers to build such communities. Further, it will also lend to the community a true pedestrian orientation, encouraging walking, bicycling, and transit use without diminishing access to the automobile. Specific recommendations for standards are found in the Community Design Guidelines.

SACRAMENTO COUNTY GENERAL PLAN

CIRCULATION ELEMENT

Section III

BACKGROUND TOPICS

OTHER MODES OF TRANSPORTATION

INTRODUCTION

This portion of the Circulation Element contains information about transportation topics which are less critical to the community than the automobile and transit issues which dominate this Plan. The information presented here condenses a series of working papers which cover these topics in more detail. Those papers are not a part of this General Plan, but are available from the Sacramento County Planning and Community Development Department.

AVIATION

There are a total of nine airports in Sacramento County: two County owned and operated, one City owned and County operated, four privately owned for public use, and two U.S. Air Force bases (see Table III-1 and Figure III-1). The seven General Aviation Airports (airports which major commercial airlines or the general public can use) in Sacramento County are sufficient to meet projected demand for airport services for the next 20 years.

Table III-1

CHARACTERISTICS OF SACRAMENTO COUNTY AIRPORTS

<u>NAME</u>	<u>OWNER</u>	<u>OPERATOR</u>	<u>TYPE</u>
Sacramento Metro	County	County	Major Commercial
Franklin Field	County	County	General Aviation
Executive Airport	City	County	General Aviation
Rio Linda	Private	Private	General Aviation
Natomas Airpark	Private	Private	General Aviation
Sunset Sky ranch	Private	Private	General Aviation
Rancho Murieta	Private	Private	General Aviation
Mather Air Force Base	U.S.A.	Air Force	Military
McClellan Air Force Base	U.S.A.	Air Force	Military



Sacramento Metro Airport is the only major commercial airport in the area. Traffic at Metro is expected to grow at a healthy rate as demand for air freight, passenger, and mail services grows. Additionally, Metro is likely to become a hub airport where flights converge to make cargo and passenger transfers before going to their final destinations. Major airfield and terminal improvements will be necessary before Metro can become a hub airport. This status would bring greater air and ground traffic, and would provide more and better service to the Sacramento area.

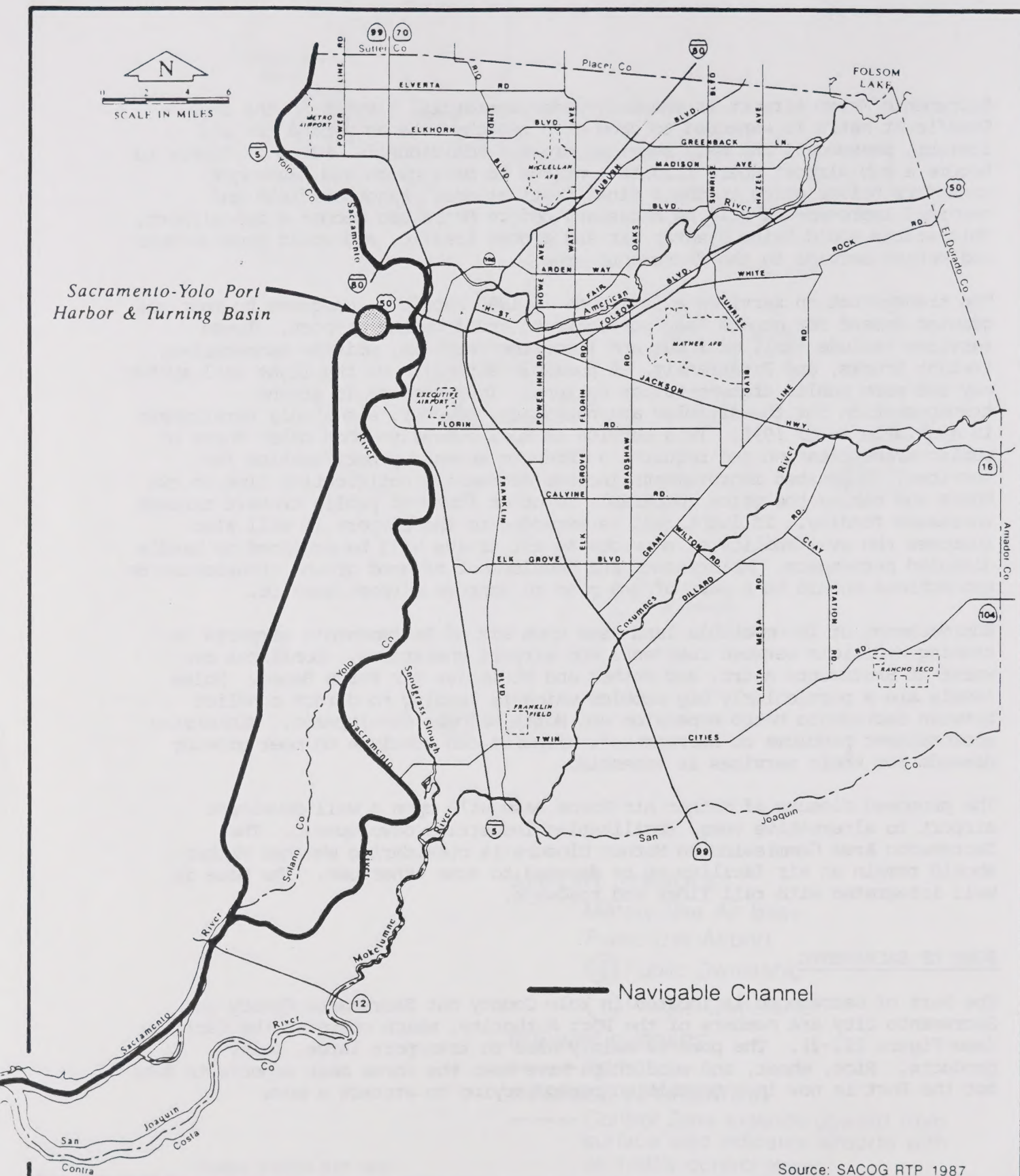
The transportation services existing as of 1990 should be adequate to meet the growing demand for ground transportation to and from the airport. These services include taxi, mini bus and limousine services, private automobiles, freight trucks, and Paratransit. A possible extension of the light rail system may add more public transportation options. Improvements in ground transportation for the disabled are necessary, however, since only Paratransit is available as of 1990. This service is more expensive than other forms of public transportation and requires a three to seven day notification for services. Suggested improvements include decreasing notification time to two hours and making the price comparable to other forms of public transit through increased funding. If light rail is extended to the airport it will also increase the availability of services as all trains will be equipped to handle disabled passengers. Maintenance and development of good ground transportation connections should be a part of any plan to improve airport service.

Encroachment of incompatible land uses upon six of Sacramento's airports is causing conflicts between residents and airport operations. Conflicts are worst at Sacramento Metro, and Mather and McClellan Air Force Bases. Noise levels are a particularly big problem which is leading to direct conflict between Sacramento Metro expansion and North Natomas development. Minimizing encroachment problems so Sacramento's airports can continue to meet growing demands for their services is essential.

The proposed closure of Mather Air Force Base will open a well developed airport to alternative uses, facilitating industrial development. The Sacramento Area Commission on Mather Closure is considering whether Mather should remain an air facility or be devoted to some other use. The base is well integrated with rail lines and roadways.

PORT OF SACRAMENTO

The Port of Sacramento is located in Yolo County but Sacramento County and Sacramento City are members of the Port Authority, which operates the facility (see Figure III-2). The port is mainly used to transport large, bulky products. Rice, wheat, and wood chips have been the three main exports to date but the Port is now in a transition period trying to attract a more



Circulation Element Figure No. III-2 COMMERCIAL WATER SHIPPING FACILITIES

Prepared by the Sacramento County Planning and Community Development Department

diversified cargo mix. As of 1990, the Port Authority is in the process of:

- ° Dredging to deepen the Deep Water Shipping Channel,
- ° Planning to establish a Foreign Trade Zone,
- ° Negotiating to develop lands around the port for additional storage and industrial usage,
- ° Improving Port facilities, and
- ° Integrating with surrounding freight transportation infrastructures.

These measures should lead to more diversification of cargos, thus increasing demand for port services. These improvements are expected to lead to a 3% annual growth rate in port usage and jobs. The Foreign Trade Zone is possibly the most exciting part of these improvements as it will increase Sacramento and California's international trade options and enhance our status in the Pacific Rim trade arena.

The Port offers Sacramento County an opportunity for creative development through its international trade options and its attraction for large corporations like Proctor and Gamble, Arco, Diamond International, and Union Oil. Additionally, the Port could serve as a terminal for high speed commuter service from Sacramento to the Bay Area on commuter hydrofoils.

Future demand for Port services depends heavily on the completion of the above development plans for the Port. These in turn depend on obtaining rezoning of the Port's 600 acres from agricultural to industrial by the City of West Sacramento. New port infrastructure, planned as the final step in the Port's redevelopment, will allow more efficient transfer of cargos to existing highway and rail transportation systems. Funding of port improvements is, of course, crucial to achieving these plans. Such funding will come from revenue bonds and leases on part of the Port's 600 acres to port affiliated or dependant industries. Maintaining an interest in all development possibilities for the Port will allow Sacramento County to plan for the large increases in job opportunities, and industrial and economic development expected from these improvements.

RAIL TRANSPORTATION

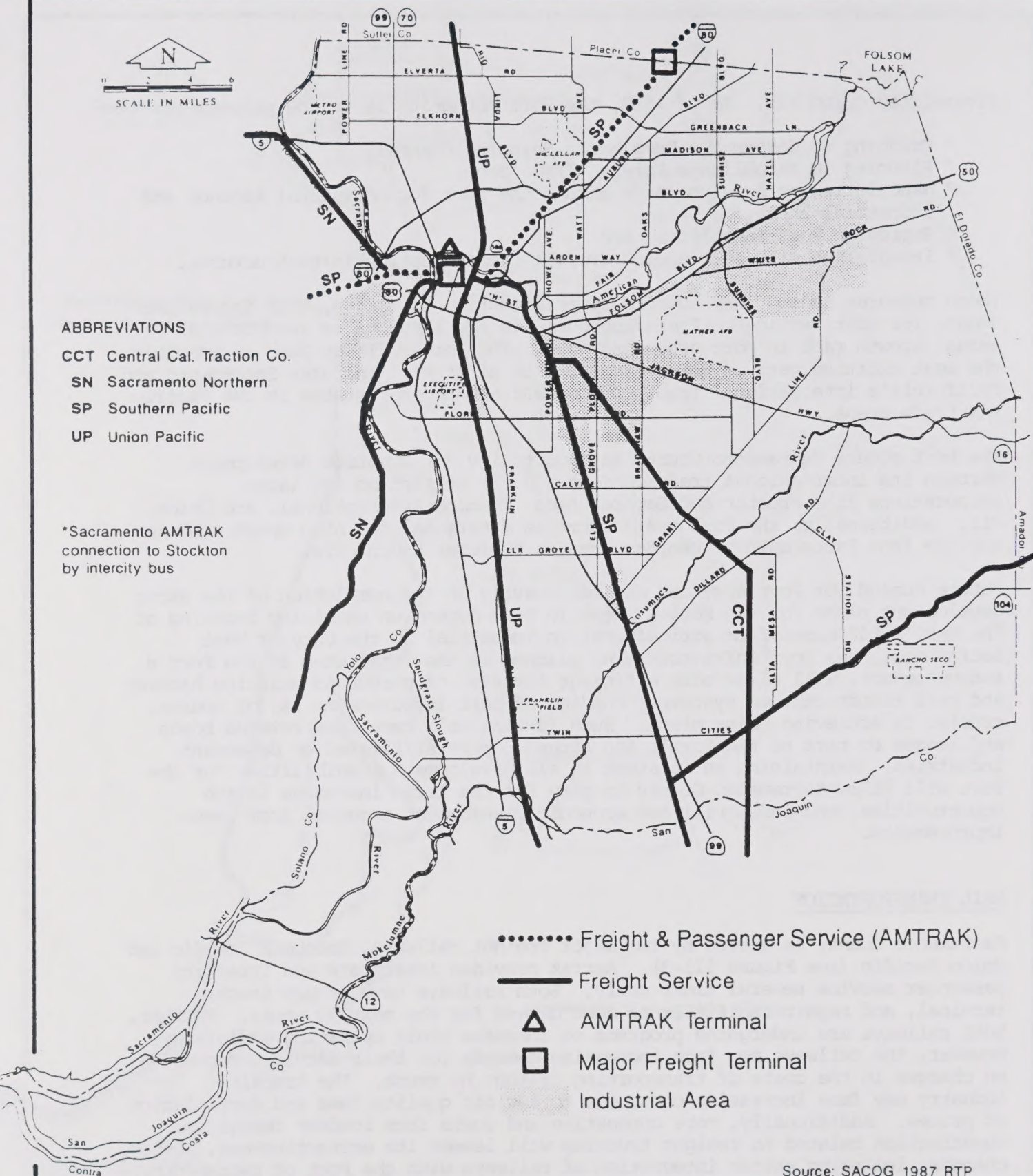
Sacramento County is served by two major freight railways, Southern Pacific and Union Pacific (see Figure III-3). Amtrak provides interstate and intercity passenger service several times daily. Both railways have enough track, terminal, and repair facilities to meet demand for the next 20 years. Further, both railways are undergoing programs to increase their operating efficiency. However, the railways may face increasing demands for their services depending on changes in the costs of transporting freight by truck. The trucking industry may face increasing costs due to new air quality laws and deregulation of prices. Additionally, more congestion and costs from roadway repair and construction related to freight trucking will lessen its attractiveness. Other changes, including better integration of railways with the Port of Sacramento, Sacramento Metro Airport, and mass transit systems all point to increasing demand for railway services. Rail freight tonnages are shown on



ABBREVIATIONS

CCT Central Cal. Traction Co.
 SN Sacramento Northern
 SP Southern Pacific
 UP Union Pacific

*Sacramento AMTRAK
 connection to Stockton
 by intercity bus



- Freight & Passenger Service (AMTRAK)
- Freight Service
- △ AMTRAK Terminal
- Major Freight Terminal
- Industrial Area

Source: SACOG 1987 RTP



Circulation Element Figure No. III-3 EXISTING RAILROAD FACILITIES & ACCESSIBLE INDUSTRIAL AREAS

Prepared by the Sacramento County Planning and Community Development Department

Figure III-4. Industrial areas within Sacramento County served by rail are shown on Figure III-3.

A proposal to electrify the railways has been viewed favorably by Caltrans, since future benefits are expected to outweigh the costs. If electrification does occur it will make railways even more attractive. Good planning will support rail use through high density development along rail lines, while further studies may continue to indicate significant advantages for electrification of trains. The County may acquire rail lines abandoned by the railways in their programs to increase efficiency. These abandoned lines could be used for light rail, bike trails, or open space.

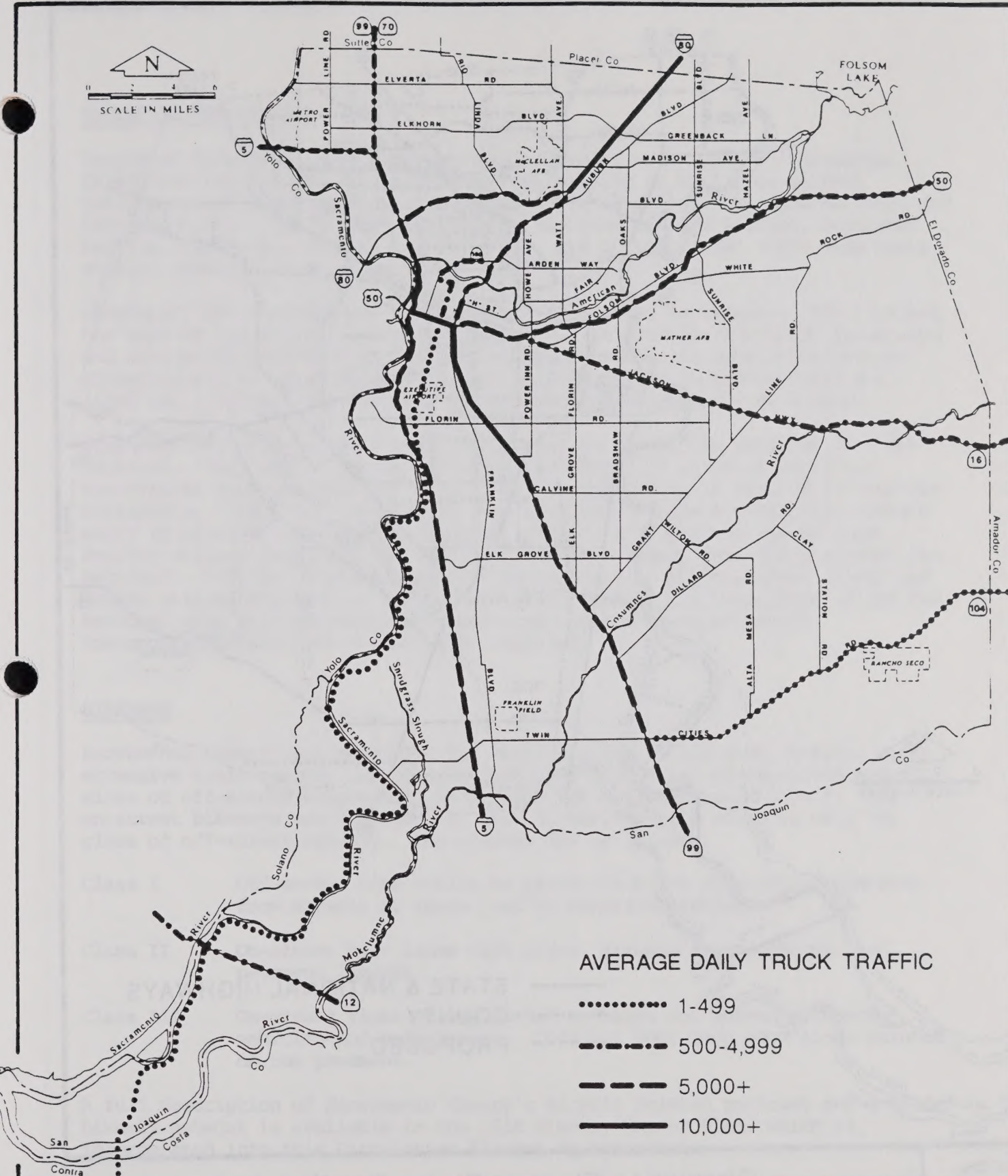
HIGHWAY FREIGHT TRANSPORTATION

Highway freight traffic is a direct result of low density urban development. The trucking industry provides fast, flexible, multiple destination service that can easily cover the entire urban area on existing roads. One set of predictions indicates that truck vehicle miles traveled (VMT) will double over the next 20 years due to continued economic growth and the high costs of the permanent infrastructure required by other forms of freight transportation. This will lead to increases in: maintenance and construction cost for roadways, traffic congestion, air and noise pollution, and truck-related accidents. Other predictions show freight trucking leveling off or declining in the face of tougher air quality laws and deregulation of pricing; which will drive up the cost of trucking and make other forms of freight transportation more attractive. See Figure III-5 for data on truck freight trips.

To help counteract some of the negative impacts of freight truck service, shipping schedules could be changed to minimize peak hour conflicts. These changes could include increased nighttime freighting and delivery, and prohibition of truck traffic during peak traffic hours.

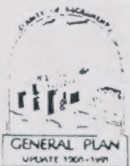
Truck Routes: Truck routes are designated to minimize problems caused by trucks that are oversized, overweight, or too tall for a specific road. Truck regulations also aim to reduce hazards to pedestrians, bicycles, and light vehicle traffic which may occur when trucks have unrestricted access to all roads. Truck routes and regulations are enforced by the California State Highway Patrol, County Sheriff, and City Police.

All state and national highways within the County of Sacramento have been designated as truck routes by the California Department of Transportation as part of the National Network for Service Transportation Assistance Act of 1982 (STAA). Trucks are defined as heavy freight vehicles which meet the STAA definitions as found in the California State Vehicle Code. Truck routes on city or county roads are designated by the specific city or county. Additionally, the County can specifically prohibit trucks from using State or National highways if needed. Truck routes in the Sacramento Area are shown on Figure III-6.



Circulation Element Figure No. III-5 1988 TRUCK VOLUMES ON MAJOR HIGHWAYS

Prepared by the Sacramento County Planning and Community Development Department



Prepared by the Sacramento County Planning and Community Development Department

INTERCITY BUS SERVICE

Greyhound Lines provides bus connections to major urban centers throughout California and the nation. High frequency service is available between Sacramento and San Francisco (19 buses daily), Reno (14), Los Angeles (10), and Lake Tahoe (8). One or more trips daily are also made to Redding, Portland, Seattle, Vancouver, Yakima, New York City, and Boston. Most trips also serve smaller communities en route.

Greyhound, Inc. maintains a bus terminal in downtown Sacramento. The terminal has been at its present location since 1944. It provides Greyhound passengers and Sacramento residents with excellent opportunities to make transfers and connections with other modes of public transportation including local bus, light rail, Amtrak, and shuttles to the Sacramento Metropolitan Airport.

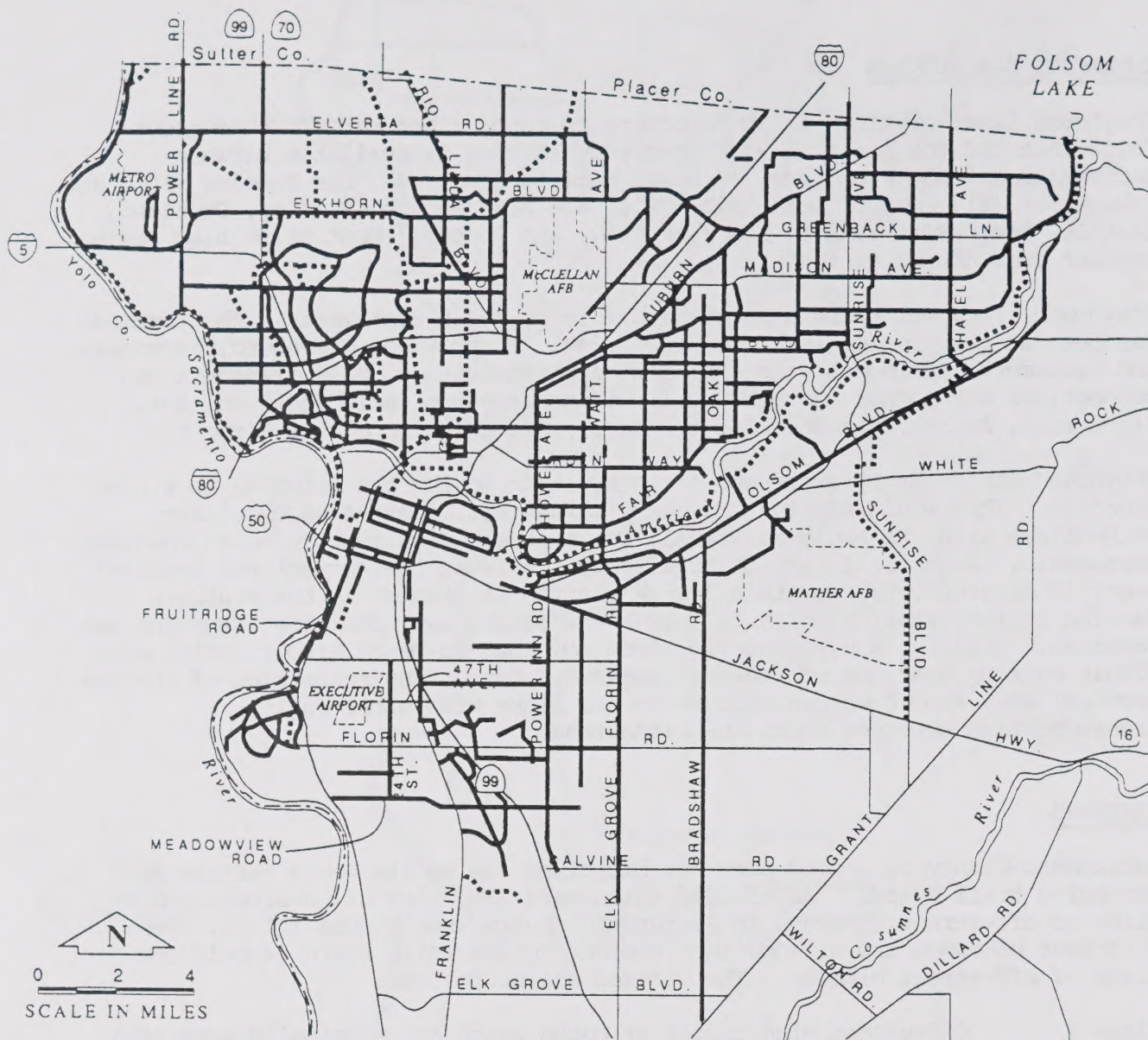
Greyhound has recently expressed an interest in moving the terminal to a new location. This would deprive Greyhound passengers of existing excellent connections with the Regional Transit bus system, which is focused on downtown Sacramento. Light rail service is also available at the current bus terminal every 15 minutes. Sacramento's Amtrak station is located in the Southern Pacific railway station which is only a few blocks away from the Greyhound bus terminal. Finally, shuttle service from downtown to Metro Airport originates within walking distance of the bus terminal. Hence, any relocation of the bus terminal away from downtown Sacramento and links with other public transportation services should be discouraged.

BIKEWAYS

Sacramento County is a good area for bicycling due to its level terrain and extensive trail system. As of 1990 there were 230 miles of on-street and 68 miles of off-street bikeways in Sacramento County (see Figure III-7). The on-street bikeways are divided into two categories while there is only one class of off-street bikeway. The classes are as follows:

- | | |
|-----------|---|
| Class I | Off-street bike trails or paths which are physically separated from streets or roads used by motorized vehicles. |
| Class II | On-street bike lanes with signs, striped lane markings, and pavement legends. |
| Class III | On-street right of way marked by signs and shared with motor vehicles and pedestrians. Optional four inch edge lines painted on the pavement. |

A full description of Sacramento County's Bicycle related policies and intended bikeway network is available in the 2010 Bikeway Master Plan, which is incorporated into this Circulation Element by reference.



— ON-STREET
 OFF-STREET

Major Network Bikeways
 For Full Network, See Bikeway Master Plan



Circulation Element Figure No. III-7 2010 Sacramento City/County Bikeways Master Plan

Prepared by the Sacramento County Planning and Community Development Department

Issues:

Funding: Use of bicycles as an alternative form of transportation will help reduce congestion, improve air quality, and reduce the energy consumed by petroleum fueled vehicles. Bikes are cheaper to own and operate than automobiles and often allow the user more freedom than public transportation. Increasing usage of bicycles for daily transportation means a corresponding decrease in automobile use. To ensure that bikes continue to be an attractive alternative to automobiles, funding for future bikeways and the preservation and improvement of existing bikeways will be necessary. Funding to promote and encourage bicycling and improve safety is another important factor.

Safety and Accidents: Safety is always a concern for bicyclists. The statistics for the last ten years show that bicycle/motor vehicle accidents have been increasing. Most likely this is due to the general increase in motor vehicles and bicycles on the roadways, however, it is an issue which warrants further consideration.

The location and design of bikeways greatly affects their safety, with Class I routes being the safest and Class III being the least safe. Bicycles that share the road with motorized vehicles are subject to being hit or forced off the road while being exposed to debris, opened car doors, pedestrians, and roadside hazards. In addition to proper design and location of bikeways, safety can be improved by bicyclist training, auto driver awareness programs, and bike lane maintenance.

CONCLUSION

There is no question that the automobile provides benefits to society. The benefits of the modes of transportation discussed above are equally important. By developing all components of the transportation system in the proper balance, residents of Sacramento County will enjoy full access to jobs, goods, and services in the community.

REGIONAL COORDINATION

Attaining the goals of this Circulation Element will require improved regional coordination. Traffic congestion, air quality, water quality, commute patterns, and jobs/housing balance are just a few planning issues which should be approached from a regional perspective. These issues do not confine themselves to political boundaries, rather they may overflow into several jurisdictions. The county's high growth rate further necessitates better coordination.

There are many decision-making bodies, agencies, and advisory groups which influence the Sacramento Region, including the cities, counties, RT, EMD, AQMD, SACOG, CALTRANS, and community organizations. Planning within a regional context can prevent duplication of effort, waste of resources, and direct conflicts. Therefore, it is important for all jurisdictions and agencies to share resources and work towards common goals. The County, through

its policies and actions can encourage full coordination with various agencies and groups.

Regional coordination is well facilitated by the Sacramento Area Council of Governments (SACOG). This agency is the regional planning agency with authority in Sacramento, Yolo, Sutter, and Yuba Counties and portions of Placer County. As a regional agency it serves as the Air Quality Planning Agency for the Sacramento Air Quality Planning Area, the Airport Land Use Commission for the counties of Sacramento, Sutter, Yolo, and Yuba, and the regional transportation planning agency responsible for various transportation plans, studies, and transit funding. It is the intent of the County to achieve not only the coordination of actions by local decision-making bodies toward common goals, but also the coordination of all actions by all public bodies toward these goals.

ISSUES CRITICAL TO TRANSPORTATION

AIR QUALITY

The relationship between automobile travel and air quality is evident. Estimates by the SACOG indicate that automobiles and trucks are the principal source of mobile emissions. They account for 42 percent of the Reactive Organic Gases (ROG), 70 percent of the nitrogen oxides, and 80 percent of the carbon monoxide emissions in Sacramento County.

According to the report titled "The Air Pollution-Transportation Linkage" (State of California, Air Resources Board), air quality is a major issue for Sacramento. Based upon the standards of the California Clean Air Act of 1988, the Sacramento Region exceeds state ambient air quality standards and can be classified as having "severe" air pollution. This classification requires that the Region achieve an annual 5% emission reduction. The Act also increases the authority of the Sacramento Metropolitan Air Quality Management District (AQMD). AQMD has the legislative authority to review and mitigate indirect sources in order to meet the mandated reductions in emissions. Clearly, automobile emissions are a primary generator of air pollutants in the Sacramento Region. Planning the transportation system in a manner consistent with air quality goals will contribute to reducing air pollutant emissions in the Region.

Therefore, the transportation planning process of the County must be integrated with AQMD's responsibilities to reduce air pollutant emissions. The Region's air quality goals will be attained through a variety of approaches:

- ° reduced per capita trip generation
- ° increased transit options
- ° employment of new technologies like telecommunications to reduce trips
- ° implementation of mitigation programs or offset fee receipt from indirect sources such as housing developments, shopping centers, and major employment centers
- ° new land use patterns

The change in land use is the most significant component, for combining residential, commercial, and retail uses with an accessible transit system will have the greatest impact on our air quality. The Air Quality Element provides a more in-depth discussion of the other strategies.

JOBS/HOUSING

A community's "jobs/housing ratio" is a measure of the employment opportunities and housing availability, which compares the number of jobs to the number of employed residents. A healthy and productive community should have a balance of jobs and housing, rather than an overabundance of either one. Generally, a balanced community has had a 1:1 ratio of jobs to housing units. The increase in the number of working women over the past two decades has shifted the ratio upwards. Since more persons per household are now working, the number of jobs must also increase to achieve a balanced community. Some recent projections have included a jobs/housing ratio as high as 1:1.3.

Simple jobs/housing ratio calculations do not consider the relative affordability of local housing and the balance of employment types within the community. While an area's jobs/housing ratio is a quantitatively defined statistic, the term "jobs/housing balance" represents a qualitative planning goal. A jobs/housing balance occurs when people can afford housing that allows them to travel reasonably short distances to their jobs. Those with jobs who cannot afford housing will have to travel long distances anyway.

Having the same number of jobs and employed residents in an area is an important objective, however, it does not necessarily ensure that a qualitative jobs/housing balance will be attained. For example, according to the quantitative analysis a community may have a 1:1 ratio of jobs to employed residents. But the statistic does not reflect the community's housing affordability match. That is, the cost of the housing stock and the wage level of the jobs must be consistent, for if the housing costs are high and employment wages are low, a jobs/housing balance does not exist. People living in the expensive housing market must commute to another community to work for higher wages, and those working in the community for low wages must commute from areas of affordable housing. Therefore, a true jobs/housing balance does not exist because the people cannot work and live in the same community due to mismatch of employment wages and housing costs.

The other factor not reflected in the mathematical ratio is the type of employment within the community. One classification division is between "basic" and "non-basic" employment. Basic employment refers to the number of jobs necessary to generate sufficient outside revenue to support the community. Nonbasic Employment are those jobs which provide necessary support services to the community. It is important for a community to have a balance of basic and nonbasic employment. Within a community or neighborhood, there should be opportunities to work and to obtain goods and services for everyday life, thereby reducing the necessity for external trips.

Planning for a jobs/housing balance is not just a mathematical exercise, but rather requires both a quantitative and qualitative analysis of commute behavior, employment opportunities by occupation and wage, housing needs by income type, the rates of both job and housing growth, and the need for commercial services for neighborhood support.

To address the relationship between jobs and housing, the County supports two strategies:

1. Concentrating employment opportunities at key locations along the transportation/transit system, and
2. Supporting housing and job infill proposals at transit stops and along established or planned transit routes.

LAND USE STRATEGIES

Infill: Infill areas are vacant parcels within existing urbanized communities, surrounded by urban development. In the Land Use Element infill areas are designated as a physical setting for Transit-Oriented Developments (TODs). Infill will continue to occur in the urban area of the County. It is anticipated that the rate of infill within established urban communities will range between 3% and 5% annually. The County encourages infill and has identified several objectives in the Land Use Element which can be achieved through infill:

- ° Upgrade the quality of existing neighborhoods, particularly in blighted areas;
- ° Enhance public transit use and efficiency;
- ° Utilize existing public infrastructure and services in an efficient manner;
- ° Decrease energy consumption for transportation, space heating and cooling, and other uses; and
- ° Provide additional housing opportunities for a range of income groups within each community.

The Land Use Element identifies potential infill areas for which some development projects will receive County support. These sites have excellent transit service along either the Trunk Line Network or the Feeder Line Network of the Regional Transit system, and have adequate levels of public services and facilities as determined by the service providers. Calculations reveal that if the 3% to 5% historic rate of infill continues, approximately 680 units per year will be constructed within the existing urban area. The Land Use Element provides a more in-depth discussion of infill.

Transit Oriented Development (TODs): Transit-oriented developments, as described in the Land Use Element, are mixed-use neighborhoods of between 20 and 160 acres in size that are developed within an average one-quarter mile walking distance of a transit stop. The design, configuration, and mix of uses provide an alternative to traditional suburban development patterns by promoting a development of pedestrian-oriented environments and the use of public transportation. TODs mix residential, retail, office, open space, and public uses, making it possible for residents and employees to travel by transit, bicycle or foot, as well as by car.

TODs can be configured into two types of development patterns: either as "Urban TODs" or "Neighborhood TODs".

Urban TODs: Urban TODs are located at transit stops along the Trunk Line Network of the transit system. These transit stops may be either light rail or bus. Because Urban TODs are located along the major lines of the transit system, they should have a higher percentage of employment generating uses, and should be developed at higher residential densities than Neighborhood TODs.

Neighborhood TODs: Neighborhood TODs are generally located along the Feeder Line Network. This Feeder Line Network depicts high quality, direct bus service with 10 or 15 minute headways that feeds the Trunk Line. Neighborhood TODs should place greater emphasis on residential uses and neighborhood retail uses than do Urban TODs.

TODs may be surrounded by lower density residential neighborhoods or lower intensity employment uses, called Secondary Areas. Development in the secondary areas shall be designed to link to the TODs through an interconnected street system with easy access to the transit stop and commercial core. A more in depth discussion of TODs is in the Land Use Element.

The development of Sacramento's expanding metropolitan areas, in a manner consistent with the transit-oriented development concept, accomplishes several of the County's most important goals. TODs establish a link between the transit and land use, and also assist in providing affordable housing. TOD communities are beneficial because they efficiently use the County's limited land resource. By increasing transit use they reduce traffic congestion and air pollution. They are affordable for the diverse households moving to Sacramento because a variety of housing types and densities are encouraged in convenient locations. TODs are affordable to businesses seeking to relocate in Sacramento because their workforce can be freed of the gridlock and high housing cost typical in other California regions. Finally, TODs are beneficial to the public taxpayer because TOD infrastructure is used efficiently.

CONGESTION MANAGEMENT PLAN

In June of 1990, California voters approved Propositions 108 and 111 creating new funding sources for California's transportation system. There are specific requirements for their programming of these funding sources. One of these

requirements is for the preparation and implementation of a Congestion Management Plan (CMP).

Producing the Congestion Management Plan required that appropriate land use, transportation, and air quality agencies to work together, integrate their planning processes, share information, and develop a coordinated plan to respond to congestion. The end product was a capital improvement program that considers all facets of the problems concerning the regional transportation system. The Plan was developed through a coordinated effort of diverse planning processes, resulting in a CMP that takes a comprehensive, regional approach to solving congestion problems.

Congestion Management Plan legislation requires counties to designate a Congestion Management Agency (CMA). The County and its cities must agree on the choice of the CMA. The CMA was designated by a resolution adopted by the County Board of Supervisors and the city councils of a majority of the cities representing a majority of the population in the incorporated area of the county.

The CMA has developed, reviewed, and adopted the CMP, and will monitor the CMP and participating agencies for conformance. Each process required completing several tasks or the development of programs. The CMP has five components, including an element defining the CMP System and its Level Of Service standards (LOS), a transit standards element, a transportation demand management (TDM) element, a program for analyzing the impacts of land use decisions, and a capital improvement program. In addition to these components and as a part of the process of developing the CMP, the CMA was required to develop a traffic impact data base for use in a county-wide model.

The CMA was required to consult with local governments, the transportation planning agency, regional transportation providers, Caltrans, and the air quality management or air pollution control district. This contact with the local governments ties the CMP to several planning requirements and processes including General plans, California Environmental Quality Act, Regional Transportation Plans, Regional Transportation Improvement Plans, and Caltrans System Plans.

MISCELLANEOUS TRANSPORTATION TOPICS

LEVEL OF SERVICE (LOS)

Each roadway, including surface streets and highways, has a capacity to carry traffic. That capacity depends upon the number of lanes, design factors, and the speed limit of the road. The roadway's current volume is the actual amount of traffic observed. The volume divided by the capacity yields a ratio. The level of service (LOS) is a descriptive designation assigned to this ratio. LOS is essentially an index for traffic level and rate of flow. Transportation modelling studies which assess a network's mobility, use the level of service as a main source of data. Table III-2 gives the volume to capacity ratios and

the assigned LOS descriptions from the "Highway Capacity Manual" and Circular 212 of the Transportation Resources Board (1965).

Traffic Management: Adequate roadway capacity must be available to serve new development projects on county roadways. The Sacramento County Congestion Management Plan should be used as a guide for all proposed development projects in determining the impact that each project will have on roadway capacity. Projects which impose a significant impact on roadway congestion must mitigate the impact. In the event that an intersection or portion of roadway exceeds the applicable service standards, an associated project should be denied unless appropriate mitigation measures can be established, or a portion of roadway is subject to a finding of special circumstances.

Table III-2

LEVEL OF SERVICE RATIOS AND DESCRIPTION

<u>Level of Service</u>	<u>Volume/Capacity Ratio</u>
A = Free flow; low volumes and high speeds; most drivers can select own speed.	= 0.00 - 0.60
B = Stable flow; speeds restricted slightly by traffic.	= 0.61 - 0.70
C = Stable flow; speed controlled by traffic.	= 0.71 - 0.80
D = Approaching unstable flow; low speed.	= 0.81 - 0.90
E = Unstable flow; low, varying speeds; volumes at or near capacity.	= 0.91 - 1.00
F = Forced flow; low speed; volume below capacity; stoppages.	= 1.0 and over

TRAFFIC CONGESTION AND ACCIDENT RATES

In February, 1989 a study was conducted by the Sacramento County Planning and Community Development Department to determine the correlation between traffic densities and accident rates. The study was based on data gathered in 1986 on

congested roadway intersections and segments. The data were gathered by Sacramento County Highway and Bridges Division and the Traffic Engineering Division of the City of Sacramento Public Works Department.

Accident rates on segments were defined as Accidents/Million Vehicle Miles and categorized as high (greater than 7.0), medium (4.8 to 7.0) or low (below 4.8).

Intersection accident rates were expressed as Accidents/Thousand Vehicle Miles and given the same category names, but with limits of greater than 1.7 for the high, 1.2 to 1.7 for the medium, and below 1.2 for the low category.

The premise of this study was that as congestion increases on roadways, the accident rate also increases. Statistical analyses performed on these data indicate that no such relationship exists. Most likely, other factors such as road design, driver type, traffic speed (speeds slow due to heavy congestion), and under-reporting of minor accidents, are important variables in the traffic density and accident rate equation.

TRANSPORTATION FUNDING

ROADWAY FUNDING IN SACRAMENTO COUNTY

Roadway funding in Sacramento County is divided into two general sources: funding from federal and state funds, and local sources. The information in this description of roadway funding was prepared by the Sacramento County Department of Public Works (Public Works, 1990).

The funding of roads in Sacramento County changed substantially during the 1980's. Funding for roadway construction has gone from a program dominated by Federal and State funds matched by road funds (mainly gas tax apportionments subvented to the County by the State) to a program with funding that is dominated by sources generated at the local level.

Area Specific Roadway Financing Programs: By General Plan policy (1.3.1/3.6 in 1982 edition), development of designated urban expansion areas is to proceed after the preparation and adoption of comprehensive public facilities financing plans to establish the programs to provide the necessary urban infrastructure. This policy has been applied to the Laguna, Antelope, and Laguna Creek Ranch/Elliott Ranch areas. Efforts have begun to prepare a public facilities financing plan for the Elk Grove - West Vineyard area, although a number of individual development projects have been allowed to begin development prior to the adoption of a community plan for the urban study area there.

In some established Sacramento communities the ongoing development of vacant land may necessitate efforts to fund major roadway improvements to accommodate continuing increases in local roadway traffic. The formation of special assessment districts provides a means to allocate the costs of these traffic mitigating improvements to existing as well as future development.

The roadway facility improvements to be funded through public facilities financing plans or special assessment districts may be directed toward both local county road and State highways. Brief descriptions of the roadway related provisions of these area financing plans follow:

Laguna Public Facilities Financing Plan: The Laguna Public Facilities Financing Plan provides for the financing of some \$44.8 million in roadway improvements to serve the 4,600 acre Laguna community. The Laguna Community Plan was adopted in 1978 and included policies requiring a financing plan for facilities prior to development. In 1982, initial efforts began that culminated in the adoption of the Laguna Public Facilities Financing Plan, Phase 1.5, in May, 1986 (Resolution. No. 86-724). The Laguna Financing Plan, as revised to date, provides for \$36.4 million of the road improvements to be debt financed by the issuance of Mello-Roos bonds and \$8.4 million of the road improvements to be funded by the collection of development fees with the issuance of building permits in Laguna. Improvements include arterial and thoroughfare streets and intersections and construction of a new freeway interchange on SR-99.

The Laguna Community Facilities District was established in May, 1986, by resolution of the Board of Supervisors and vote of the qualified electorate of Laguna property owners, pursuant to the Mello-Roos Community Facilities District Act of 1982. The bonds issued by the Laguna Community Facilities District are to be retired by the collection of special taxes on the lands in the District, using a schedule of tax rates based upon zoning and net acreage. The Laguna Area Roadway Development Fee (Sacramento County Code Chapter 16.85) is collected at the time of building permit issuance. It was enacted by Ordinance SCC-0775 in July, 1989, superseding an earlier version of the Laguna roadway development fee program. Fee revenues generated will fund the construction of a number of roadway improvements not needed until several years after the bond-funded road facilities are built.

Antelope Public Facilities Financing Plan: The Antelope Public Facilities Financing Plan provides for the financing of about \$25.6 million in roadway improvements to serve the 2,275 acre Antelope plan area adjacent to Placer County in the North Highlands - Foothill Farms Community. The Antelope land use plan was adopted by the Board of Supervisors in March, 1985, with the Antelope Public Facilities Financing Plan following in February, 1986. The Antelope roadway improvements are to be financed by the collection of special Antelope development fees (County Code Chapter 16.80), which are based upon zoning and acreage. Improvements to be constructed include arterial and thoroughfare streets and intersections as well as a contribution to a thoroughfare/railroad overcrossing project partially funded by a grant from the California Public Utilities Commission.

Laguna Creek Ranch/Elliott Ranch Public Facilities Financing Plan: The Laguna Creek Ranch/Elliott Ranch Public Facilities Financing Plan provides for the financing of some \$37.3 million in roadway improvements to serve the 1,665 acre development plan area located west of the Laguna Community Facilities District adjacent to the I-5 freeway. The Laguna Creek Ranch and Elliott Ranch

development projects were initially approved by the Board of Supervisors in late 1986. Major revisions to the project's designs were approved in June, 1990. The Public Facilities Financing Plan, expected to be approved by mid-1990, calls for the formation of the Laguna Creek Ranch/Elliott Ranch Community Facilities District No. 1., which would fund \$33.6 million in roadway improvements via the issuance of Mello-Roos bonds. These facilities would include arterial and thoroughfare streets and intersections, railroad overcrossings, and freeway interchanges. The Laguna Area Roadway Development Fee (Sacramento County Code Chapter 16.85) is collected at the time of building permit issuance. It was enacted by Ordinance SCC-0775 in July, 1989, to allocate funding responsibility for a number of roadway improvements between the Laguna Facilities Plan Area and Laguna Creek Ranch/Elliott Ranch. Some \$3.7 million in fee revenues will be generated by development in Laguna Creek Ranch/Elliott Ranch.

Elk Grove - West Vineyard Public Facilities Financing Plan: Although some components of the Elk Grove - West Vineyard Community Plan are not expected to be adopted until early 1991, preliminary efforts to scope a public facilities financing plan suggest that a roadway development fee program could be a viable approach to the timely funding of almost \$79 million in roadway improvements to serve this 6,200 acre area. Both arterial and thoroughfare improvements and freeway interchange facilities are being tentatively included in the scoping effort.

Sunrise/U.S. 50 Corridor Assessment District: The Sunrise/U.S. 50 Corridor Assessment District, established in October, 1986, pursuant to a Resolution of Intention by the Board of Supervisors (No. 86-1510), finances about \$16.7 million in roadway improvements to serve developed and undeveloped industrial-office park, industrial, commercial, and multi-family zoned lands comprising a 2,850 acre area located south of Folsom Boulevard and/or U.S. Highway 50 in the vicinity of the Sunrise Boulevard and Zinfandel Drive interchanges. The Sunrise/U.S. 50 Corridor Assessment District is organized under the Municipal Improvement Act of 1913 and has issued 1915 Act bonds. The improvements being constructed include expansion of the Zinfandel Drive freeway interchange, widening and extension of several arterial and thoroughfare streets, and numerous intersection improvements.

Bradshaw/U.S. 50 Corridor Integrated Financing District: The Bradshaw/U.S. 50 Corridor Integrated Financing District has been under litigation. It was being organized under the Municipal Improvement Act of 1913 and the Integrated Financing District Act (which provides for contingent assessments on properties that are rezoned for more intensive use), pursuant to a Resolution of Intention by the Board of Supervisors (No. 88-0372) in April, 1988. The District was proposed to finance about \$8.6 million in roadway improvements to serve developed and undeveloped industrial-office park, industrial, commercial, and multi-family zoned land comprising an 1,120 acre area, which extends south from Folsom Boulevard to Kiefer Boulevard between Mayhew Road and Routier Road. The improvements to be constructed were to include the expansion of the Bradshaw Road freeway interchange, the widening of Bradshaw Boulevard, and numerous improvements to arterial and thoroughfare intersections.

Local County Road Construction Financing Programs: The funding sources that have come into prominence in the 1980's are the 1/2 cent Sales Tax for Transportation (Measure "A"), the County Roadway and Transit Development Fee, and various special financing districts. Road funds have been used to construct minor projects for which no other source of funding is available, or for matching Federal funds on a project not eligible for any other funding category. Federal and State funding of County road projects is still significant but is equaled or exceeded by each of the three local fund sources mentioned above.

One other source of road funding in the County is that of the private sector on a development by development basis. The County requires streets to be constructed within developments, and half streets on the boundaries of developments, in accordance with the County Improvement Standards. The value of improvements installed by private developers is unknown as the County does not award and administer the contracts although it is estimated on an annual lump sum. The amount of roadway construction done in this manner is directly related to the rate of development in the County. County road construction projects typically complement the improvements that have already been constructed on major streets. The County projects complete the widening on sections of roadway that have yet to be improved or were not improved to a standard commensurate with the County improvement Standards.

The following is a specific discussion of sources of revenue making a substantial contribution to roadway construction in Sacramento County:

Sales Tax (Measure "A"): Approximately \$6 million annually is anticipated from the County 1/2 cent Sales Tax for transportation which went into effect on April 1, 1989. The Sacramento Transportation Authority (STA), an 11 member body consisting primarily of members of the Sacramento County Board of Supervisors and Sacramento City Council, annually authorizes the expenditure of funds on a project by project basis. The ballot measure identified specific projects, and any deviation from the measure requires a super majority vote (9 of 11 members) of the STA for approval. The STA contracts with the County to do the design and construction of work on the County road system. This source of funds has an inflation factor built into it as the sales tax is directly related to the price of retail goods sold.

The County Roadway and Transit Development Fee (SCC, Cha 16.87): Approximately \$6 million dollars per year for road construction is anticipated from this program. Fees are collected on building permits to pay for the roadway improvements (i.e. road widening and traffic signals) needed as a result of the traffic generated by development. Fee areas and projects are specifically identified in the ordinance. The project list, estimated costs, and the related fees are periodically updated based on projections of development and traffic forecasts.

Some roads that have been identified for improvements that relate partially to existing needs and regional growth and partially to local development are targeted for partial funding with the Roadway Fee and partial funding with

Sales Tax revenues, Federal Aid Urban funds, or other sources. The source of funds from the Roadway Fee adjusts with the needs as construction estimates accounted for in fee revisions to be proposed to the County Board of Supervisors.

Road Fund: The primary source of this fund is a subvention (direct grant of funds) of the State fuel tax. This source of revenue is changed incrementally as it lacks the built-in inflation factor of the other two sources. The State gas tax was increased in 1982 to nine cents per gallon with a subvention of a little over two cents per gallon which was shared by all of the counties of the State. Another increase was enacted by the voters of the State by the approval of Proposition 111 on June 5, 1990. This proposition increased the State gas tax five cents per gallon for each of the four following years. Initially this results in a direct subvention of an estimated \$3.6 million per year to the County, a substantial portion of which is anticipated to go into road maintenance with the remaining increase funding the road construction in specific areas such as traffic safety, bikeways, sidewalks, etc. Other fund sources are often deposited into the road fund for accounting purposes, but the amount of construction annually related to traditional road fund sources has typically been \$1.0 million or less over the last few years.

SB 325 Funds: Local Transportation Funds (SB325) come from 1/4 cent of the Statewide sales tax and is distributed to the County for pedestrian and bicycle facilities and for rural roads maintenance and construction.

Federal and State Funds: These have also contributed significantly to the construction of County roads over the years. The funding of projects has generally been sporadic as the priorities of the state and county as a whole (including other agencies) have been determiners of when and which projects are funded on Sacramento County roads. The portion of this funding received by the County has averaged about \$2 million per year over the last three years.

Emerging Federal policy would allow the States greater discretion in the funding of projects with Federal money but require a greater State or local match. State legislation in 1989 greatly changed the nature of transportation programs and the State Ballot Measure on June 5, 1990, allows for the necessary funding. New State programs for funding of local roads include the following:

State-Local Partnership Program: All qualifying projects will be approved for funding for this program but the percentage of State funds (maximum 50%) will depend on the number of projects submitted Statewide. The estimate for the 1989/90 year is about 13 percent State match. The project requirements are easy to satisfy, but the State has placed stringent requirements on the type of local funds eligible for the local match. Two billion dollars is to be available Statewide in this program over the 10 year life of the gas tax increase.

Flexible Congestion Relief (FCR): This is a new program that allows the CTC to program funds on the most cost effective capacity enhancing measure whether it be improvements on local streets, State highways, or rail transit. Projects can be 100 percent State funded in this program or a mixture of State and local funds. Three billion dollars is to be available in this program statewide over the ten year life of the gas tax increase.

Transportation Systems Management Program: This allows for State or local agency projects to be funded to reduce congestion without major improvements such as additional lanes. One billion dollars is available in the program over the 10-year life of the gas tax increase.

General State Highways Construction Financing Programs: The State Highway 5-year State Transportation Improvement Program (STIP) approved by the California Transportation Commission in 1988, was inadequately funded and the 1989 STIP was never adopted. The passage of Proposition 111 in June of 1990 provided funding for the 1988 STIP as well as securing funding for the newly approved or modified programs.

The County is more involved in State highways than in the past, especially as it works through the STA and SACOG. The STA has responsibility for Measure "A" projects on State highways, and an estimated \$120 million in State projects were contained in the ballot measure. Many of these projects are planned for a combination of local sales tax dollars, State money, and some development money. Recommendations for the funding of State highway projects are made by the County to the STA and SACOG. The Regional Transportation Improvement Program (RTIP) prepared by SACOG contains the recommendations for project funding to the California Transportation Commission (CTC). Previously, the CTC could choose projects from the RTIP or CALTRANS Preliminary Transportation Improvement Program (PSTIP); now SACOG has the primary role of proposing State Highway Projects (FCR). Projects to the CTC and the PSTIP include only projects outside of the urban area. The CTC can choose which projects to fund subject to legislative constraints such as a prescribed north/south (geographic) split of funding and a prescribed minimum allocations that must be met for each County on a five-year period basis.

State legislation allows for the establishment of, or recognition of, an organization having Countywide authority, such as the STA, to determine the priorities within the County and administer the Flexible Congestion Relief Program, Commuter Rail, and the Urban Rail Program. This will require STA staff to provide better coordination of transportation improvements and a greater likelihood of capturing more State funds.

County Road Maintenance: The road fund has historically been the primary source of roadway maintenance funds. The gas tax revenue identified for maintenance is about \$14 million per annum. The gas tax was increased by \$3.6 million per annum in June of 1990 and a significant portion of the \$3.6 million subvention anticipated for Sacramento County is expected to be applied to maintenance activities. Previously, revenues provided a barely adequate level of maintenance but did not provide some desirable activities that could be

improved or increased with additional revenues such as increased sweeping frequency, cleanup, and increased safety striping.

The Transportation Sales Tax contribution to maintenance is about \$7 million per year. This has a built-in inflation factor, as was previously mentioned in regard to the portion of the Transportation Sales Tax used for construction.

Community Service Area No. 1 (CSA No. 1) was established to consolidate the various street lighting districts to incorporate safety lighting, and to include other areas with full street lighting and no special lighting district financing. This amounts to approximately \$2 million to \$3 million per year and increases can be approved by the Board of Supervisors. Prior to the passage of Measure "A", the Board of Supervisors directed the Department of Public Works to prepare a second Community Service Area for roadway maintenance. This mechanism proved unnecessary because the sales tax measure that eventually was approved included funding for maintenance. The Board of Supervisors could choose to reconsider the creation of a second Community Service Area for road maintenance should it be deemed necessary in the future.

A few other sources of funds may also contribute to maintaining the County road facilities such as SB325 funds for rural roads and Elk Grove Community Services District special property tax assessment for roadway lighting and landscaping.

Conclusion: In summary, the funding picture for roads is more diverse and thus healthier than it has been for many years. There is a built-in inflation factor in portions of the revenue and a potential for future increases or creation of new sources as the needs dictate.

The need to make roadway capacity improvements has been recognized and acted upon, by the voters with Measure "A" in 1988 and Proposition 111 in 1990, and by the Development Community and the County Board of Supervisors with the Roadway Fee in 1988. However, these improvements must be combined with other measures to accommodate Statewide, regional, and local growth. In order to continue to provide an acceptable level of service of traffic; roadway capacity improvements must be combined with land use strategies reducing the need for and length of trips, measures increasing vehicle occupancy, an improved transit usage and service, an extension of light rail lines, etc. Roadway improvements are appropriate for freeways to provide a time savings to bus and other high occupancy vehicles. These improvements are high occupancy vehicle (HOV) lanes on the mainline freeway segments or at metered on-ramps. These and other techniques that prove to be feasible on freeways, or a few other new high capacity roadways, will be proposed for implementation.

TRANSIT FUNDING SOURCES

Sacramento Regional Transit District (RT) is the largest transit operator in Sacramento County, servicing a 340 square mile district. RT provides bus service on 60 routes and also operates an 18.3 mile light rail system. Adequate funding is essential for the operation and expansion of this system.

Furthermore, an expanded system will provide the public with a balance of transportation options. RT derives funding from federal, state, local, and private sources. The federal and state governments provide extensive revenue for capital projects. An important share of operating revenue is also awarded by federal sources, but the local sources are the most significant in terms of operating. This section adapted from RT's Five Year Transit Plan, FY 1990 - 1994, FY 1990 Update, and discusses these various sources and the funding type.

Federal Funding Sources: The federal government provides funding through the Urban Mass Transportation Act (UMTA) of 1964, as amended. Funding is awarded through specific sections of the Act which stipulates its use. This section, as adapted from the Sacramento Regional Transit District Five Year Transit Plan Fiscal Years 1990-1994, 1990 Update, describes each section, the type of funding, and forecasted amounts.

Section 3 funds are discretionary capital funds awarded only after all available Section 9 (see below) funds have been programmed. Funding is available for (but not restricted to) the modernization of older rail transit systems, bus fleet improvements not met by the formula funding (i.e. Section 9 grants), and new guideway transit systems. UMTA gives priority consideration to Section 3 capital grant applications from those transit operators who can provide more than 25% matching funds, demonstrate significant utilization of competitive bidding for service, provide other private sector opportunities to reduce or minimize various transit operating costs. Also, the applicant's previous grant program administration practices are reviewed.

Section 6 funds are granted for research, development, and demonstration projects in all phases of mass transit. As of 1990 RT's projections do not include Section 6 funds.

Section 8 funds are distributed through the area's local Metropolitan Planning Organization (MPO) to state and local public agencies for planning, engineering, design, and evaluation of public transportation projects. SACOG is the MPO for this area.

Section 9 funds were created by the Surface Transportation Assistance Act of 1982. They are formula block grant funds awarded for both operating and capital programs. Funding derives from the "nickel gas tax" in which one of every five cents collected is directed into the program.

Section 9 funds have been and will continue to be RT's primary source of federal funding. Recent legislation placed a "cap" on the operating subsidy at 80% of the agency's 1982 funding level. In fiscal year 1988, the operating cap was reduced to provide additional operating support for smaller urbanized areas. As a result, RT's Section 9 operating funding was reduced by from \$4.06 million in FY 1987 to \$3.58 million in FY 1988, a decrease of 13.4%. In fiscal year 1991, RT anticipates another decrease will reduce Section 9 funding to approximately \$3.2 million or 11.9% less than 1988. Funding is expected to remain at this level for until 1995.

Section 9 Rail Tier funding for capital improvements is awarded to transit operators with a functioning light rail system. These funds are apportioned by a formula based on population and fixed guideway route miles. The funds are designated for bus or rail capital projects.

Federal Aid Urban (FAU) funds are discretionary capital funds awarded by the Federal Highway Administration (FHA). FAU funds are designated for capital highway programs, but mass transit projects may also be funded with this source. Approval authority rests with a committee of local public transportation entities. The approval criteria include project readiness, funding availability, and needs analysis. Following project approval, CALTRANS administers these grants. RT utilizes these funds for projects ranging from transit center improvements to bus purchases.

Section FA-130 are discretionary capital funds for projects which ameliorate hazards at railroad-highway crossings. FA-130 funds are administered by the FHA through CALTRANS on a 90% federal/10% local match basis. CALTRANS has expressed interest in funding the local match for eliminating hazardous RT Metro light rail grade crossings.

State Funding Sources: State Transportation Assistance (STA) funding is provided annually through the state budgetary process from the Transportation Planning and Development (TP&D) Account. Funds from this source can be used towards operating and capital expenses. STA funds are allocated according to a formula based on a ratio of local population and transit operator revenue to state wide population and revenue. SACOG, the local MPO, then apportions the funds by a formula. Although the TP&D account has been a steady source of funding, it has also been used in recent years to meet the needs of the State's General Fund. Inevitably, STA funding levels fluctuate as the State's budgetary process seeks alternative revenue sources to cover projected costs.

Article XIX of the State Constitution provides funds from gasoline sales tax for capital projects. Taxable gasoline sales revenues are channeled into the State Highway Account and earmarked for roads and highways, fixed guideways, and other related programs. The California Transportation Commission (CTC) reviews projects, assigns them priority numbers, and makes a recommendation to the Governor. Those projects with the highest priority are approved for funding. Article XIX funds were used as required local match dollars to obtain other federal funds which partially financed the RT Metro Project and double tracking of the RT Metro starter line.

Transportation Planning and Development Funds for capital projects flow into the TP&D account through excess gas tax receipts. Appropriation of funds from this account is made annually through the State budgetary process. Eligible projects are reviewed by the CTC for approval. This source has provided a portion of the necessary funds used for the local match of the RT Metro Project and for the acquisition of ten light rail vehicles.

California Public Utilities Commission Funds are discretionary project funds specifically for eliminating dangerous railroad grade crossings. The funds are

collected from gas tax receipts, and are apportioned to the California Public Utilities Commission (PUC). The PUC awards the funds based on a priority list. In the RT Metro Project, this source provided funding for overpasses at potentially dangerous railroad crossing.

The Commuter and Urban Rail Transit Program is a new funding source for capital projects created by the 1989 State Transportation Funding and Reform Legislation. The Act stipulates that not more than 85% of the bond funds authorized in State Assembly Bill 973 fund the program. The public votes on three general obligation bonds in \$1.0 billion increments in 1990, 1992, and 1994. The public passed the 1990 bond issue (Proposition 108) in June 1990. Projects for the Commuter and Urban Rail Transit Program funded by Proposition 108 may be programmed in the first three years of the 7-year State Transportation Improvement Program (STIP). Northern California was apportioned \$300 million in those years with a 50% match required. The legislation identified RT's Measure A-funded light rail projects (a new south line extension to Calvine Road/Highway 99 and starter line extensions to Antelope Road and Hazel Avenue) and the downtown Sacramento-Sports Stadium portion of the proposed Natomas/Metropolitan Airport light rail line as eligible projects.

The Clean Air and Transportation Improvement Act of 1990 (Proposition 116) was passed by California voters in June 1990. The Act provides for a total of \$116 billion dollars in general obligation bonds. Of this amount, \$2.0 billion is allocated principally for passenger and commuter rail systems. It allocates certain amounts to specified state and local entities through a grant program administered by the CTC. The program requires some matching funds from local entities. Proposition 116 identified RT to receive \$100.0 million for light rail transit projects. Additionally, of the \$116 billion, \$5 billion may also be allocated to transit. As of 1990 the funds are designated for roads or transit and the CTC has the authority of it allocation. Therefore, this source has the potential of providing more than \$7 billion for transit projects.

The California Clean Air Act includes provisions for capital funding of transportation improvement projects to improve local and regional air quality.

Local Funding Sources: The Local Transportation Fund (LTF) receives 1/4 cent of the 6 cent retail sales tax collected statewide. The 1/4 cent is returned to each county according to the amount of sales tax dollars collected in that county. LTF revenues are apportioned by population to areas within the county for operating and capital expenses. Where there is a legislated transit district, a separate apportionment is made to areas within and outside the district. LTF constitutes the largest portion of RT's operating subsidy, more than 50% in fiscal years 1990 to 1995.

Measure A, the 1/2 cent sales tax increase for road, transit, and air quality improvements, was approved in November 1988, by voters City and County of Sacramento voters. Revenue generated by the tax is disbursed through a new local agency, the Sacramento Transportation Authority (STA). STA apportions funds according to ratios established by the ordinance, approves funding for capital projects, and can authorize funding for new projects. STA annually

reviews and approves a budget submitted by RT. In general, RT is apportioned 35% of Measure A revenue. Measure A requires RT to use a portion of its revenue share to either entirely fund or provide a local match share for specified projects such as extension of the RT Metro starter line and bus purchases. Measure A funds can also be used for operating assistance. However, RT intends to maximize utilization of these funds for capital purposes. The passage of Measure A came at a very critical financial period for RT. It helped restore funding for otherwise canceled projects, and was significant in establishing a capital reserve.

The Consolidated Roadway and Transit Developer Fee (CDF) was approved in FY 1989, by the Sacramento County Board of Supervisors. This eight-year fee program funds roadway and transit capital improvements in sectors of the County. The funds are obtained by assessing fees on new developments and are based on the type and size of the development. They are linked to the necessary capital improvement costs incurred within that sector of the county. Costs are assessed proportionally to the impact of the development. CDF funds may be used for specified projects. Typically, they include new bus purchases for service expansion, park and ride facility construction, signal preemption devices, and RT Metro starter line expansion. Fees are collected by the County and disbursed to RT. RT then retains the fees until they are required for project implementation. In FY 1991, RT has programmed \$1.0 million in CDF funds for capital projects.

Another form of local revenue derives from special transit fares, advertising and auxiliary revenue, and contract jurisdiction revenue. These contributions, once significant, have not been readily available.

Miscellaneous Revenue: Other revenue sources for RT include investment income, revenue for contract services, and advertising. Together, these sources comprise less than 1% of RT's budget. However, future investment income is expected rise with an improved cash flow and an aggressive investment program.

San Francisco Bay Area Regional Measure 1 (November 1988) created new revenues for allocation by the Bay Area Metropolitan Transportation Commission (MTC) for planning, operating and capital projects which are designed to reduce vehicular traffic on Bay Area bridges. In 1990 RT is proposing to apply to MTC for a \$763,000 Regional Measure 1 "Three Percent Reserve" grant to operate a high-speed bus link between Sacramento and the Bay Area Rapid Transit (BART) heavy rail system. The Three Percent Reserve grant funds would go towards to refurbishing four buses for operating the Sacramento-BART bus link.

Development of Alternative Funding Sources: The Measure A 1/2 cent sales tax increase has given RT the opportunity to expand services to partially meet the challenges created by growth in the Sacramento region. However, RT's plans for expansion also rely on federal funding sources. If these federal sources are reduced or eliminated then scale backs will occur or alternative funding sources will be vigorously investigated. To fulfill future service needs and offset potential funding reductions, RT will need to pursue alternative local financing programs. The following discusses four potential financing programs.

Development Agreements are negotiated during the course of project approval. They require a developer to provide at least a portion of the infrastructure associated with the project. A facility can either be constructed directly by the developer or paid for with developer contributions.

An example of negotiated development agreements that provide for transportation infrastructure include the County's development agreements for Lakeside and Laguna Creek and the City's development agreement for the North Natomas Community Plan. The County agreements provide for bus shelters, turnouts, and joint-use park and ride facilities. The City's agreement provides for the dedication of land for right-of-way for an extension of light rail to serve the North Natomas Community.

A Mello-Roos Community Facilities District provides for the issuance of tax-free municipal bonds by creating a special tax assessment district to repay the debt. Local jurisdictions may form the district and levy a special tax after approval of two-thirds of the voters (or if uninhabited, two-thirds of the property owners) within the proposed district. Total revenues are dependent upon the costs of the proposed infrastructure.

An example of a Mello-Roos Community Facilities District that provides for transportation infrastructure is the County of Sacramento's Laguna Public Facilities Financing Plan. This financing plan provides for the development of park-and-ride facilities to be financed by Mello-Roos bond sales. This bond sale is a major revenue source for constructing the proposed Calvine Road park-and-ride facility. Acceptance of this source of revenue will require the execution of an agreement between the RT Board of Directors and the County Boards of Supervisors (acting in the capacity of the Community Facilities District governing board).

A Benefit Assessment District allows local governments to recover public improvements costs directly from the benefiting property owners. The assessment is based on the premise that the transportation improvement enhances the value of the affected property. Assessments are linked to a zone of benefit, with each affected parcel being assessed a specified dollar amount. Assessments can be based on three criteria: proximity of the property to the improvement; size of the property in area or street frontage; and enhanced value of the property due to the improvement.

Depending on specific enabling legislation, public hearings and a two-thirds majority vote may be required to create a benefit assessment district. The amount of revenue generated from an assessment district depends on the proposed improvement costs.

Community Service Area (CSA) is a funding mechanism similar to a Benefit Assessment District but on a larger scale. The County is able to assess fees for infrastructure in unincorporated areas directly from the benefiting property owners. The transportation improvements, which may include new or improved service, enhance the property value. It differs, in that the CSA encompasses the entire county, rather than only a selected number of parcels.

The county would be divided into districts, and again into zones. Each parcel in a zone receiving a benefit is assessed a specified dollar amount according to the improvement of services. RT and the County of Sacramento are working together in order to use this funding mechanism as a major source of operating revenue.

Capital and Operating Expenses Revenue: The two main components of RT's budget are the costs and revenue for capital projects and operating the system. Capital expenses and revenue are not consistent for one fiscal year to the next since funding is often awarded on a project by project basis. Revenue and costs for operating are more consistent from year to year and are necessary in order to keep the system operating.

In fiscal year 1991, total RT capital revenue will be approximately \$34.9 million, and the total operating revenue will be approximately \$45.9 million. The capital funding sources are many, and include large and small contributors. The two largest revenue sources are UMTA, Section FA-130 for capital projects specifically, for the elimination of hazardous railroad-highway crossings and Measure A. Each comprise approximately 25% of the total budget. The next highest source is FAU funds at 14% of the total budget. There are several which will be relatively small, but significant contributors to RT capital projects for example both UMTA, Section 9 Rail Tier funds and Proposition 108, the Commuter and Urban Rail Transit Program each at 8%, UMTA, Section 3 funds at 6.5%, Proposition 116, the Clean Air and Transportation Improvement Act at 5%, and the LTF and CDF at 5%. TP and D, the Clean Air Act, and the San Francisco Bay Area Regional Measure 1 have an anticipated contribution of approximately one percent.

Operating revenue derives from fewer sources, six sources comprise more than 95% of the \$45.9 million budget. LTF funds comprise the largest proportion of the budget at approximately 51%. The farebox and Measure A funding are also substantial sources, at 26% and 15% respectively. UMTA, Section 9 funding contributes 7% to the budget, while UMTA, Section 8 funding for data collection and development review, San Francisco Bay Area Regional Measure 1 and other miscellaneous operating revenue, cumulatively comprise approximately 1%.

Examining funding by the broad categories of federal, state, local sources, and miscellaneous reveals a wide divergence between capital and operating revenues. Capital revenue derives from revenue from all three categories. The largest proportion of funds originates from federal programs, approximately 53.5%. Local sources follow with 31%, state programs giving 15%, and other miscellaneous sources awarding .5%. Almost every category contributes a significant amount to the total budget. This is not the case in operating revenues. Local funding sources are approximately 92% of the total operating budget, next are the federal programs awarding 7% and miscellaneous funding contributing 1%.

RT's Five Year Transit Plan, FY 1990 - 1994, FY 1990 Update discusses the District's Operating Revenue and Expenditure outlook for fiscal year 1991 to 1995. There are three possible scenarios, each containing network upgrades.

Based on funding availability, each scenario incurs a deficit in fiscal year 1992. The following is summary of each scenario including the system improvements, operating expenses and revenues, and the 5 year deficit.

- ° Baseline Scenario: Operate Light Rail Service Extension in One Corridor in fiscal year 1995

Operating Expenses		Revenues		Deficit
\$283,468	+	\$257,627	=	(\$25,841)

- ° Expansion II Scenario: Add 20 New Buses Per Year Starting in fiscal year 1992 and Operate Light Rail Service in One Corridor in FY 1995

Operating Expenses		Revenues		Deficit
\$307,375	+	\$263,843	=	(\$43,532)

- ° Expansion III Scenario: Add 40 New Buses Per Year Starting in FY 1992 and Operate Light Rail Service in One Corridor in FY 1995.

Operating Expenses		Revenues		Deficit
\$334,644	+	\$270,932	=	(\$63,712)

An additional \$25.8 million to 63.7 million in operating revenues will be needed depending upon the operating scenario selected between fiscal years 1992 and 1995. The operating deficit resulting from expanding the system will be addressed through the alternative funding sources discussed earlier, especially the Community Service Area.

The scenario selected in fiscal years 1992 and 1995 depends on several factors including the recommendations of the Regional Transit Systems Planning Study and future funding for operating and capital expenses. The Systems Planning Study is the first step of the federal capital investment planning process to prioritize corridors for light rail extensions. The final report will include a set of recommended priority transit corridor alternatives. Upon plan adoption in April 1991, PT will incorporate the adopted priority transit corridor alternatives in the fiscal year 1992 Update of the Short Range Transit Plan.

After deciding upon the appropriate scenario, funding must be obtained. Although the passage of the Measure A 1/2 cent sales tax for roadway and transit improvements and the County's adoption of a Roadway and Transit Development Fee have provided additional funds for Capital and service improvements, RT will continue to rely on federal funding to realize the full development potential of its RT Metro light rail improvement and extension program. Alternative funding sources such as development agreements, Mello-Roos community Facilities Districts, benefit assessment districts, and the community service area will be major funding sources in the future.

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SACRAMENTO COUNTY GENERAL PLAN

CIRCULATION ELEMENT

Section IV

IMPACTS OF CURRENT TRANSPORTATION SYSTEM

PAST PRACTICE

The desire for mobility is understandable. It is an extension of personal freedom, part of American culture, and perceived as a human right. In a nation and state so large it has become a necessity.

Many people obtain mobility with the automobile. The flexibility of time and destination and the low costs relative to time saved are the automobile's most popular qualities. The public and their legislators supported federal, state, and local financing programs to help build an extensive street and highway system. These results meet their desires for increased automobile use.

RESULT

THE FORM OF PLACES

The extensive street and highway system met the public's needs, but had associated impacts. The system influenced the urban character and form. Places people live, work, shop, and play took on new appearances. The change occurred so long ago that the roads and the land uses they influenced have been taken for granted.

Before the automobile, people valued time just as much as they do today. Since slow transportation made living far from work time consuming, compact urban areas formed.

Life styles change each time the transportation system improves. The first streetcars and rail systems built in the last century reduced travel time. This new technology saved time for the residents living near the system. Property values increased along routes as concentrations of apartments, shops, and work places formed. Destinations were linked, and streetcar and rail transportation was self-supporting. Housing quality distinctions developed between low density residential land uses not situated on busy corridors, and high density residential land uses. The advent of widespread auto use again changed transportation and land use patterns. Mass production of automobiles and housing followed World War II, and several other factors also contributed to today's urban form. Automobiles came into common use during a time when the nation's economy was expanding and the majority of people could spend more for private transportation and housing. The public found independent travel appealing and coordination with others was no longer necessary. Public funds built the road network which provided extensive mobility. These roads gave

access to large amounts of land and lowered land costs. Federal mortgage loan guarantees attracted cheap private capital, creating reasonable monthly installments. These factors opened the housing market to more people, and volume construction techniques further reduced costs. Mass produced housing was built on large land tracts where previously, only more wealthy individuals could afford a single-family detached home on a spacious lot.

An extensive road network eliminated any need to be situated near a transit line. Convenient automobile travel allowed a dispersal of destinations. Activities serving residential populations -- retail, office, and institutional -- dispersed within the residential framework. Industrial uses located along truck routes as well as the traditional rail and water routes. The forces concentrating development in the central business district or transportation corridors broke down.

These circumstances altered the urban form and created high demand for single-family detached housing. If those circumstances remain unchanged, the current urban form will continue. If circumstances change, the form of urban places and the housing produced for people entering the housing market will also change.

THE CHARACTER OF PLACES

The circumstances previously described offered people many choices. They could live on a large lot, in a semi-rural environment and far from work and the conveniences of daily life, or live in an urban environment near work and daily conveniences.

Land use planning evolved to respond to the needs of an automobile-oriented transportation system. The auto and road-based transportation system eliminated concentrating forces, and large homogeneous land use districts formed. Physically separating homogeneous uses became the "good planning" standard and the accepted practice. Instead of good design, space and inexpensive land were used to mitigate transportation impacts. Planning did not change the basic nature of each land use to reduce impacts.

Real estate products within each homogeneous district are standardized by zoning regulations and common practice. Zoning in residential areas establishes a density standard which specifies minimum lot sizes to provide space and buffer against traffic and noise. Standards corresponding to each zoning density influence housing type, size, and price within each zoning classification. Density levels reflect socially and economically homogeneous neighborhoods.

Retail, office, and industrial use standards devote significant amounts of land to automobiles. Additional space is required for landscaping intended to restore harmony between commercial uses and surrounding neighborhoods.

This automobile and road-oriented transportation system changed urban form resulting in low density, sprawling communities.

SPILL OVER EFFECTS

This section discusses issues linked with a road-oriented transportation system.

ROAD COSTS

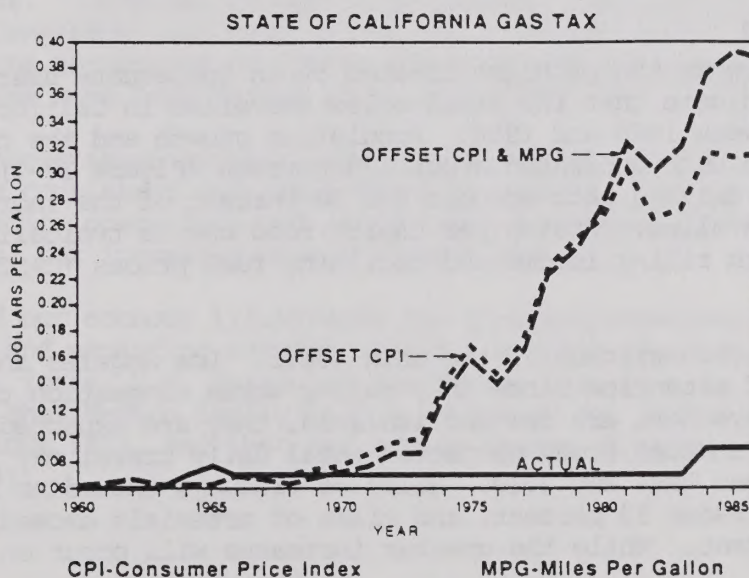
The fuel tax has been the primary funding source for road construction, operation, and maintenance. The initial fuel tax was based on the user charge principle.

User charge systems create self-supporting programs that do not require funds from other sources. User charges operate on a principle of equity. A properly constructed user charge program should be revised periodically to adjust to changing revenues and costs.

Current Status: The current gas tax financing system does not operate well as a user charge. Periodic fuel tax adjustments have inadequately compensated for inflation, revenues have declined due to improved fuel efficiency, and the aging road system's maintenance costs have increased. Closing this gap would require a 500 percent fuel tax increase. In Figure IV-1 the line marked "Actual" shows how the gas tax increased from \$0.06 in 1960 to \$0.09 in 1986. The dotted line shows how the tax would have to increase to \$0.31 to offset the effects of inflation. The dashed line indicates how the tax would have to increase to \$0.39 to cover the effects of inflation and reduced fuel consumption. (This estimate does not cover road costs funded through the federal fuel tax.) Unincorporated Sacramento County roads are inadequately funded, even with the recent increase of the fuel tax to \$0.18 per gallon.

Figure IV-1

COMPARISON OF ACTUAL & POTENTIAL TAX

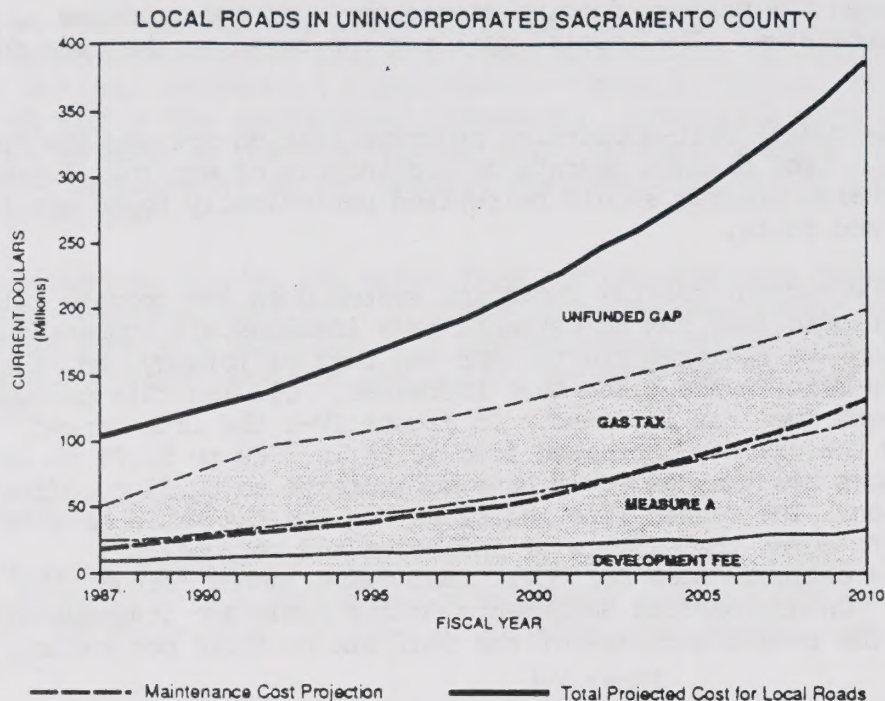


SOURCE: CALTRANS, Sacramento County

In Figure IV-2 the shaded area represents adopted revenue sources, including Propositions 108 and 111. Although these sources are sufficient to cover all projected maintenance costs they do not cover the total costs of local roads, which are projected to be \$380 million by 2000. An adequate fuel tax increase would impact the automotive and energy-producing sectors of our economy.

Figure IV-2

PROJECTED REVENUES AND COSTS

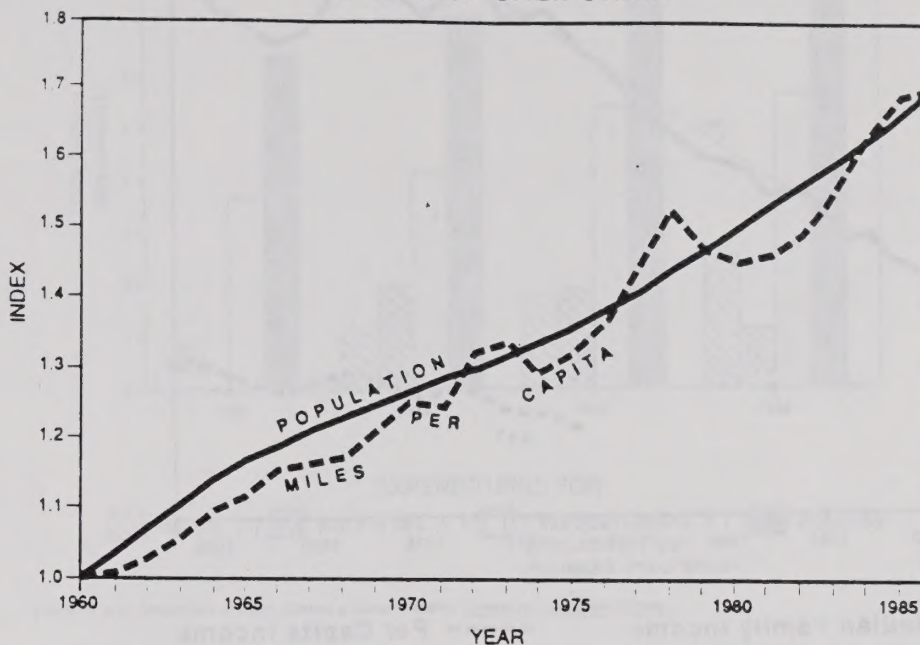


SOURCE: SACOG, Sacramento County

Rising travel demand compounds the problems created by an inadequate user charge. CALTRANS data indicate that the total miles travelled in California increased 190 percent between 1960 and 1988. Population growth and the number of miles driven per capita both increased about 170 percent (Figure IV-3). Growth and an increase in driving each account for 50 percent of the increase in total vehicle miles travelled. Rising per capita road use is typically, but not always, associated with rising income and declining fuel prices (CALTRANS, 1988).

In road system discussions, congestion is the main topic. Los Angeles and San Francisco are the focus of attention since they suffer worse congestion than Sacramento. Although delays here are few and isolated, they are expected to become much worse. SACOG's Metro Study projected total daily travel may increase 127 percent between 1984 and 2010. Miles of freeways exceeding Level of Service (LOS) F may increase 52 percent, and miles of arterials exceeding LOS F may increase 34 percent. While the greater increases will occur on roads

Figure IV-3
MILES DRIVEN PER CAPITA
 STATE OF CALIFORNIA



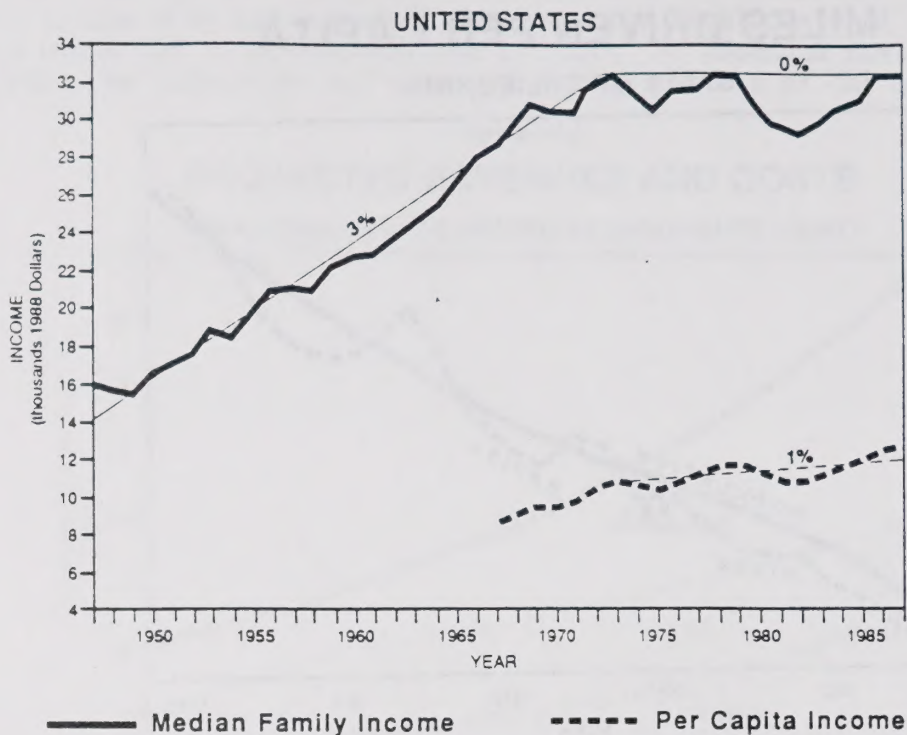
SOURCE: CALTRANS

at the periphery of the urban area, large increases also occur in established neighborhoods. Increases exceeding 50 percent were projected for Madison Avenue and Greenback Lane west of Sunrise. Volumes shown on each successive edition of the Department of Public Works' Traffic Volume Flow Map indicate that increases have been higher than projected.

Today's transportation crisis stems from the difficulty in funding road improvements consistent with this level of demand. On the one hand, the cost of construction, operation, and maintenance increased faster than inflation. On the other, tax increases have been resisted.

The state of our economy illustrates the problems government faces when maintaining and expanding service levels. Despite the fact that more women are in the labor force, U.S. Bureau of the Census data for the Western United States show that Median Family Income, adjusted for inflation, has not increased since 1973, and that per capita income shows only modest increases (Figure IV-4).

Figure IV-4 MEDIAN FAMILY & PER CAPITA INCOME



SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, CPI Detailed Report

A significant change has occurred in the circumstances that once allowed the nation to devote resources to building an extensive road system. This results in a shortage of funds, deferred construction, and increased congestion.

PERSONAL TRANSPORTATION COSTS

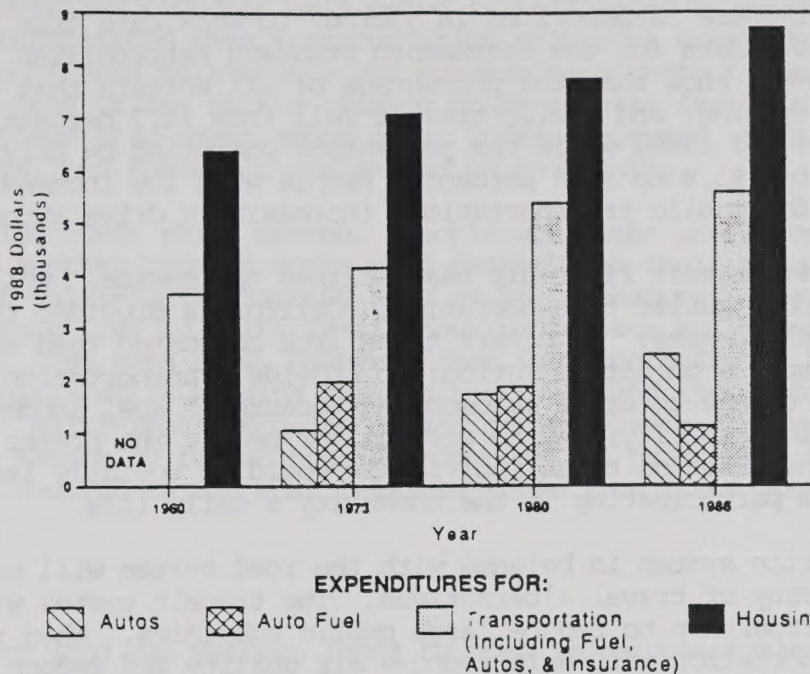
Personal transportation costs rose in constant terms from \$3,700 to \$5,500 per annum from 1960 to 1986, as automobile expenditures rose faster than inflation (Figure IV-5). Also during this period, the number of two wage-earner households using two automobiles to get to work rose rapidly. These figures include the entire western United States, and would possibly be higher in California alone since personal mileage has risen so sharply in this state.

CALTRANS projects a continued increase in overall personal transportation costs. The expectation is that by the year 2010, the number of vehicles per resident will increase 6.2 percent and the cost of fuel will increase 11.5 percent in real terms (CALTRANS, 1989). If insurance and maintenance costs also increase, people will continue stretching budgets, and spending high proportions on automobiles. This will alter the economy's productivity levels or change the transportation system dramatically.

Figure IV-5

TRANSPORTATION & HOUSING EXPENDITURES PER FAMILY

WESTERN UNITED STATES



SOURCE: U.S. Department of Labor, Bureau of Labor Statistics Consumer Expenditure Survey

Whether future incomes will continue to allow for increases in transportation costs is uncertain. CALTRANS projects a 1.65 percent increase in Total Personal Income (TPI) per annum in real terms between 1990 and 2010. TPI includes wages and salaries, and also income not readily converted to cash, such as imputed rent or home ownership appreciation. Housing prices rise faster than income causing TPI to grow.

CALTRANS' future income projections can be misleading. Non-cash income from increases in home values must be converted to cash before it can be spent. Furthermore, TPI represents an average of individual incomes that include homeowners and non-homeowners. As housing affordability becomes a more serious problem, TPI becomes a less precise income indicator. Data representing ordinary income, and total wage and salary income, show that a 1.65 percent rate is much higher than the rate maintained during the past seventeen years (Figure IV-4).

TRANSIT COSTS

Operating public transportation in a low density environment is difficult since the auto is a more attractive alternative. Transit is not always available and has longer travel times, therefore people choose the automobile. Transit service must be convenient and reduce travel time in order to increase ridership. Improving transit will increase ridership, but require significant capital, operating, and maintenance expenditures. Transit can best accomplish this when it has help from agencies responsible for land use decisions.

People prefer cars to buses or light rail in low-density environments. Transit's low market share is described in journey-to-work data from the U.S. Bureau of the Census. Data for the Sacramento Standard Metropolitan Statistical Area (SMSA) show that the percentage of all workers that commute to work by walking, bicycling, and public transit fell from 16.2 percent to 9.1 percent between 1960 and 1980, while the percentage commuting by private vehicle increased from 83.8 to 90.9 percent. People with low incomes, the traditional market for public transportation, increasingly drive automobiles.

Since the mid-1970's, transit ridership has declined nationwide, while capital cost subsidies expanded public transportation. California provided these subsidies for several reasons: to divert trips from congested road systems; to reduce automobile impacts on air pollution; to provide transportation for individuals who are unable to drive automobiles because of age, income, illness, or physical disability; and to provide for people who prefer not to drive. Without transportation these individuals would be socially isolated and disenfranchised from participating in the community's daily life.

A public transportation system in balance with the road system will provide residents with an array of travel alternatives. The transit system will capture sufficient ridership to reduce large public subsidies. When this occurs public transportation will help improve air quality and reduce congestion.

PUBLIC SERVICES

Traditionally, low density land uses were supported by roads and public utilities. Land also was made available by publicly funded utility, water, drainage, and sewer infrastructure. Labor costs for services delivered to the household, such as postal service, police, and fire protection were increased since distance and time are important to police and fire departments when they must respond to emergencies.

Almost any area can be provided with roads, sewers, water, and other necessary services. Engineering feasibility is not the issue; funding efficiency is. Local funding problems developed when federal and state infrastructure subsidies declined. Exactions, development fees, and impact mitigation requirements assigned to housing have increased. Public services such as schools, libraries, and parks are also impacted by declining federal and state subsidies.

HOUSING AFFORDABILITY

The average annual household expenditure on housing rose in constant terms from \$6,500 to \$8,700 between 1960 and 1986 (Figure IV-4). The data includes the western United States and would be higher if California housing prices were better represented. An explicit or implicit goal for housing programs is restoring affordability to the California housing market.

A city's growth and economic well being is influenced by housing affordability. Little is accomplished when transportation solutions create housing problems. The shifting of road maintenance and construction costs to housing through development fees is one factor raising housing costs faster than inflation. Funding problems also occur among other infrastructures, such as sewer and water systems, and these too are passed on to housing.

Higher housing costs shift demand. People who might prefer one housing type buy or rent another because costs rise faster than their income. It was thought that multi-family housing acts as an incubator for prospective home owners. People live in multi-family housing to save money before buying a "real" home. The data show, however, that Sacramento County has more people living in multi-family housing than in the past, and the proportion is increasing. Multi-family housing demand can fluctuate from year to year and is linked with federally funded housing construction programs. This general plan will locate housing in the most feasible areas from a transportation viewpoint.

OPEN SPACE

A low-density land use pattern leads to open space consumption. Conflicts between the development community and open space preservationists have become frequent. Technical solutions and mitigation measures resolve these conflicts, but raise affordability issues. Unless future development consumes less land, open space losses will continue and conflicts will occur more often. These factors suggest that Sacramento County's horizontal growth is reaching its limits.

REGIONAL LAND USE

A road-oriented transportation system fragments a metropolitan area's economy, creates competition between jurisdictions, and increases travel demand. A residential development in one jurisdiction impacts the neighboring jurisdiction's road system. The development's residents work in the neighboring jurisdiction, utilizing its road network when travelling to and from work, but do not pay for road maintenance. The financing system used in Sacramento County cannot compel developments in adjacent jurisdictions to pay for roads. A developer can pay for on site or immediately off site roads directly affected by a new development, but is not responsible for broader road impacts. Accumulated impacts are often mitigated with Measure A funds.

Other jurisdictions' development impacts the Sacramento County road system in many ways. An outlying residential community may seek to expand its tax base to support services, but employment sector expansions are not in balance with the area's housing costs. People outside the community, living in less expensive housing, work in the new employment centers. This jobs/housing imbalance increases trips to the community's employment opportunities. Job competition increases road demands because the labor force fragments in a regional economy as major employers disperse over wide areas. Public transportation systems have difficulty serving scattered employment sources.

Expanding the land supply through roads affects land use distribution at a statewide scale, then impacts the Sacramento County road system. Bay Area land prices cause low-intensity warehousing and distribution facilities to shift to outlying areas with cheap land such as Sacramento County. Warehousing uses up land in industrial parks, but at very low employment densities. It is difficult to build an effective public transportation system when employment is not concentrated.

CHANGING SCALE

An extensive road system encourages the retail industry to build larger shopping centers and more specialized retail establishments. Suburban shopping centers grew over the past several decades because marketing, variety, and high volume helped them compete with preexisting establishments within large trade areas. These changes represent the achievement of scale economies in a competitive industry operating within a road-oriented transportation network. The road system connects large trade areas. People substitute long distance trips to a shopping center for shorter distance trips to local establishments. The suburban regional shopping center and its capture of local sales have increased the system's road demand.

Specialization among retail establishments also increases trip numbers and trip length. Scale change among many store types illustrates specialization. For example, grocery stores less than a thousand square feet in size once were liberally scattered throughout residential neighborhoods. Today, very few are operating. Most grocery stores are on major thoroughfares with the floor areas of more than an acre. Household furnishings, lumber, and hardware stores have also experienced scale increase and number decreases. The distances between homes and stores is great, creating difficulties in combining trips. This forces car use rather than walking for shopping and for comparison shopping.

Scale changes are a primary reason road demand continues increasing. Shopping-related trips represent more than thirty percent of all road trips, and they are increasing in number, proportion, and length. A transportation system designed for the journey-to-work cannot accommodate this large and increasing travel demand segment.

AIR QUALITY

Road travel impacts air quality significantly. SACOG estimates indicate that automobiles and trucks are the principal mobile emissions sources. They account for 42 percent of the Reactive Organic Gases (ROG), 70 percent of the nitrogen oxides, and 80 percent of the carbon monoxide emissions in Sacramento County.

The problem is serious, affecting public health, aesthetics, and the economy. These costs are unknowingly absorbed during daily life. Over the years, technological improvements to address fuel mileage and emission controls have been made. These are significant accomplishments, but technology alone will not solve current and future air pollution problems.

Without serious effort, Sacramento County will not achieve California Clean Air Act standards during the life of the Air Quality Plan. Taking into account major improvements in emission control, the amount of ROG placed into the atmosphere from mobile sources is projected to decrease from 37.9 tons per day in 1990 to 27.0 tons per day in the year 2010. Nitrogen oxides are projected to increase from 52.2 tons per day to 63.4 tons during the same period. Carbon monoxide is expected to decline from 360.3 tons per day to 329.9 tons. Maintaining current emission levels or slightly reducing them will not meet standards. The Act requires no net emissions increase and requires a 5 percent reduction per annum below current levels. Only changes in land use, transportation, and personal behavior can achieve this.

ACCIDENTS

In addition to automobile passenger safety, pedestrian and bicyclist protection is a central concern to traffic engineers. Accident analysis data indicate that automobile passenger safety has improved, with accidents increasing less than vehicle miles travelled. CALTRANS data for District 3, a group of counties surrounding and including Sacramento County, show a 69.0 percent increase in daily vehicle miles per lane mile between 1971 and 1986 (CALTRANS, 1986). County of Sacramento data for the same period indicate that total accidents increased 44.8 percent (Department of Public Works, 1990).

Accident analysis data for the same period show pedestrian and bicyclist safety decreasing. In urban areas in the US, 40 percent of all victims killed in accidents involving motor vehicles are pedestrians or bicyclists (Pucher, 1988). In Sacramento County, including the rural area, the corresponding figure is 22.8 percent (Department of California Highway Patrol, 1990). Data for Sacramento County show that accidents involving bicyclists are increasing faster than the number of bicyclists. Between 1971 and 1986, for example, the number of bicycling accidents increased from 234 to 451 or 92.7 percent (Bikeways Master Plan, 1989, and Department of Public Works, 1990). The same data show accidents involving pedestrians increased from 120 to 223 or 85.8 percent. Both increases are greater than the increases in vehicle travel and in accidents occurring between motor vehicles.

Designing safer streets and highways for automobile passengers may actually decrease bicycle and pedestrian safety. Widening roads to alleviate congestion causes bicyclists and pedestrians to compete for right-of-way space, and increases their exposure to traffic at crossings. Neither transportation mode can become a more important component of the overall system as long as modes commingle and risks continue to increase.

Pedestrian and bicycle safety improvements depend on traffic engineering (wider right-of-way, physical separation) and land use. The Land Use Element reduces road demand by redesigning land use patterns and supporting transportation networks which separate incompatible modes to the fullest extent possible.

ENERGY USE

Relatively low fuel costs keep the road-oriented transportation system in low-density areas working well. Accurate fuel price projections can not be made, but we have learned in the last two decades that endless supplies of cheap gasoline should not be assumed when designing cities.

The 1974, 1979, and 1990 oil crises revealed the impacts of dramatically increasing fuel prices. Our transportation system did not function well during these periods of unpredictable world economics and politics. When fuel prices rose, there was widespread concern over future access to home and automobile fuels.

Automobile and gasoline sales are major components of our economy. Balancing all segments is the most important factor for a healthy economy. Cities relying upon inexpensive automobiles and fuel are vulnerable to economic and political uncertainties. The competitive advantage relative to cities with better transportation systems is reduced. A major fuel crisis shifts expenditures heavily toward transportation, leaving less money for other goods and services. A balanced transportation system is an element of an economic growth strategy.

Believing that future crises are inevitable, two approaches are possible: respond when the crisis occurs or develop plans to lessen the impacts. The later scenario requires government to apply a strategic urban planning perspective that would reduce the energy requirements of future development. Fuel efficiency and home insulation accomplishments are small compared to what can be achieved with an efficient transportation system and a better relationship between land use and transportation. A strategic plan for cities would rely on efficient fuel use rather than inexpensive fuel.

CONTINUING DEPENDENCY

An automobile and road-oriented transportation system causes a dependency that creates a self-generating demand for a road transportation system. A dependency is behavior that is without free choice. Planning future road needs can operate in the same way. Observed increases in trips, trip lengths, and vehicle miles of travel have been the basis for projecting future road demand. The results (greatly increased demand) are determined by the inputs, but building a network in this manner locks everyone into continued dependency.

SUMMARY TO SPILL-OVER EFFECTS

The present land use and transportation system is oriented towards private automobiles. A road network releases forces throughout the economy that causes increased driving because destinations are expanding outward. It creates a land use pattern which produces spill-over effects. Improving land use and transportation planning will reduce these future spill-over effects.

Sacramento County supports a system which meets the public's needs while minimizing spill-over effects. Building that system requires a reassessment of the transportation system as an integrated whole. That being the case, this Circulation Element's overall objective will not be to seek imaginative funding sources just to increase the road supply and extend the transit system. Rather, it is to seek imaginative means to increase supply, manage demand, and build a transportation system balanced between roads and transit.

POLICY CHOICES

This General Plan addresses the spill-over problems through changes in transportation policy. A major change is achieved by a comprehensive set of policies which work on the incentives that an automobile and road-dominated transportation system give to land development. How this works and what it is trying to achieve are described below.

IMPLEMENT SHORT-TERM SOLUTIONS

This General Plan relies on short-term solutions as part of a long-range strategy to balance demand between roads and public transportation. John W. Dickey in his book Metropolitan Transportation Planning, defines a group of short-term transportation measures as those which make more efficient use of existing transportation facilities. These measures encompass a range of improvement strategies that are not facility and capital oriented. They use both demand management and supply optimization to capitalize on existing highway and transit-related facilities to achieve transportation goals. This includes such measures as improved transit funding, parking fees, car and van pools, and High Occupancy Vehicle (HOV) lanes.

A strong program using such measures is a very important component of a long-range strategy. They can lessen road demand by shifting demand to alternative transportation modes. This General Plan stresses requirements rather than voluntary measures, as recommended in the regional Air Quality Management Strategy.

LONG-TERM SOLUTION

Spill-over effects would continue under the former transportation system. Previous analysis demonstrated the need to improve transportation and air quality planning. This Plan proposes a realistic long-term solution based on the following assumptions.

- o Federal and state fuel taxes will not increase to the level that offsets inflation and restores these taxes to their former ability to build and maintain roads.

- o Tax limitations will not allow government to absorb a greater share of transportation costs.
- o Personal wealth will not increase to absorb additional transportation and housing costs.
- o Alternative fuels will not gain a significantly greater share of the energy demand for private transportation.
- o Auto emission controls will not materially reduce emissions from mobile sources.

Improvements in public transportation should be emphasized in a long-range strategy that uses both land use patterns and transit investment to create a different urban form. This strategy raises costs for developments to reflect the full cost of that development's impact on the regional transportation system. Also, it shifts incentives from developing in peripheral locations to more central locations. Land use patterns within the metropolitan area are set at the regional level with consideration of the present and projected transportation system. Each jurisdiction must determine its role in the region's future economic growth, how it can fulfill that role, what support it expects from the regional transportation system, and what support it can provide in return.

A transportation planning and coordination process will be instituted in Sacramento County organizing, scheduling, and financing projects which implement the county portion of a regional development plan. The regional plan will focus on improving public transportation efficiency through concentrating and linking employment growth, high-density residential development, support services, and concentrations of public activity in transportation corridors.

Incentives will be created to manage transportation demand differently. Road program management should be coordinated to prevent conflicts with the attempts to build a stronger public transportation system. Existing road investment will be maintained to the fullest extent possible, while public transportation will provide a network of high quality transit service. Additional revenues will be provided through a joint effort including Regional Transit, Sacramento County, and developers.

REFERENCES

California Department of Transportation. Assembly of Statistical Reports - 1986: California Public Road Data.

California Department of Transportation. California Motor Vehicle Stock, Travel and Fuel Forecast: For the 1989 STIP Fund Estimate and the Statewide Transportation System Plan. Division of Transportation Planning. November, 1988.

California Department of Transportation. California Motor Vehicle Stock, Travel and Fuel Forecast. Division of Transportation Planning. November, 1989.

California, State of, Department of California Highway Patrol. "Persons Killed/Injured in Accidents Involving Motor Vehicles." Management Information Section. May, 1990.

County of Sacramento, Department of Public Works, Highways and Bridges Division. "Roadway Funding in Sacramento County," and "Area Specific Funding in Sacramento County." June, 1990.

County of Sacramento, Department of Public Works, Transportation Division "Final Yearly Accident Summary." May, 1990.

Sacramento City - County Bikeway Task Force. Sacramento Bikeways Master Plan. January, 1977.

Dickey, John W. Metropolitan Transportation Planning. Washington: Hemisphere Publishing Corporation, 2nd Edition, 1983. Pucher, John.

Travel Behavior as the Outcome of Public Policy,"
Journal of the American Planning Association. Autumn, 1988.

PLANK

SACRAMENTO COUNTY GENERAL PLAN

CIRCULATION ELEMENT

Section V

TRANSPORTATION POLICY PLAN

GOAL

A balanced transportation system that moves people and goods in a safe and efficient way, that minimizes environmental impacts, that is supported by urban land uses, and that serves rural needs.

INTENT

Sacramento's economic and social systems rely heavily upon the transportation of people and goods. A transportation system should meet the needs of every member of society, including those who are unable to or prefer not to drive. This is particularly important for the young, old, ill, poor, and disabled. Transportation systems for goods should meet the needs of every producer and consumer in the economic system, especially in the local economy.

It is the intent of Sacramento County to provide a balanced, integrated transportation system that includes much more public transit than has been available to the community in the past. This transit service includes local bus service, express feeder bus service, and a comprehensive trunk line network (both bus and light rail). This transit system will be created over the life of this Plan through a cooperative effort including federal, state, and local agencies. Automobile travel will still be a major component of the transportation system, although congestion levels and automobile travel costs will almost certainly rise. Other transportation system components that are addressed in this Plan will be strengthened to serve their appropriate roles. Particular emphasis will be placed on pedestrian and bicycle travel, and on land uses that facilitate them.

IMPLEMENTATION

The transportation system planned for Sacramento County makes fundamental changes in the way people and goods are moved. The overall strategy of this Plan is to provide a high quality of transportation service by operating the road system at high efficiency while facilitating additional transit, bicycle, and foot travel. This is accomplished through the ten principles outlined below.

CIRCULATION ELEMENT PRINCIPLES

These principles apply to the transportation policies and implementation measures that follow, and guided the development of this Element.

1. Conduct transportation planning in a manner that is consistent with air quality goals.
2. Conduct land use and transportation planning with a regional perspective.
3. Match land use and transportation.
4. Charge new development for its full impacts to the transportation system.
5. Increase funding to maintain the road system and to build and operate an expanded transit system.
6. Avoid outside funding if it will result in transportation projects that are inconsistent with local priorities.
7. Reduce the demand for travel, especially single-occupant vehicle travel, by carefully matching jobs and housing.
8. Align high density development, including infill and redevelopment, along transit corridors.
9. Operate ancillary components of the transportation system (ports, rail, etc.) in an efficient and complementary manner.
10. Monitor implementation so that policies, programs, and standards may be adjusted as necessary.

TRANSPORTATION POLICIES

INTENT

The intent of this set of policies is to assure that Sacramento County conducts transportation planning with a full understanding of the regional context and appropriate role of each component in the transportation system. There are locations within the region that are suited for certain land uses, but not others. Similarly, there are transportation modes which are best suited to connect certain land uses, but not others. Implementing these policies will give Sacramento County the tools to match land uses with the appropriate transportation systems, and to assess fees for the full impacts to those systems. Each set of implementation measures is accompanied by a list of the agencies that will be involved in these programs. The agency responsible for the County's implementation effort is listed first.

SIGNIFICANT POLICY

- CI-1. **Policy:** Sacramento County shall conduct planning for road, parking, clean alternative fuel and low emission vehicles, transit, clean intercity rail, bikeway, and pedestrian facilities in a manner that is consistent with achieving air quality goals.

Discussion: The link between transportation and air pollution problems in the Sacramento Region is well documented as is the non-attainment status of our air basin. Therefore, this policy has significance in interpreting and implementing this Element to demonstrate that Sacramento County is committed to achieving the reduction in emissions called for in the California Clean Air Act. This will require modifications to County programs, development fees, the transportation system, land use patterns, and individual behavior.

Implementation:

- A. Cooperate in the development of Regional and County air quality plans that meet air quality goals while providing necessary mobility for people and goods.
- B. Implement travel demand measures as recommended in the Air Quality Attainment Plan and the Regional Air Quality Plan.
- C. Promote a balance of jobs and housing which considers income levels and housing affordability.
- D. Study and implement fees to mitigate the air quality impacts of new development.

(ENVIRONMENTAL MANAGEMENT, PLANNING, PUBLIC WORKS, SACOG, CALTRANS)

- E. Study the feasibility of establishing public transportation facilities, routes, and schedules that will serve regional recreation/open space facilities, when practical.

(REGIONAL TRANSIT, PARKS AND RECREATION)

REGIONAL PERSPECTIVE

- CI-2. **Policy:** Sacramento County shall conduct land use and transportation planning with a regional perspective.

Discussion: Without careful coordination, local jurisdictions can make land use decisions that put them at odds with one another. While this may offer a temporary advantage to one jurisdiction, in the long run all communities and residents in the region suffer as the transportation impacts of uncoordinated development build. It is critical, then, for the jurisdictions in this region to enter into a partnership to develop an understanding of appropriate regional land uses, to design a regional transportation system, and to develop mechanisms to promote a regional perspective when local land use decisions are made.

Implementation:

- A. Work with SACOG and other jurisdictions in the region to:
1. Develop an understanding of the role of each jurisdiction in the regional land use pattern;
 2. Conduct transportation demand and market research studies to determine the appropriate scale and mix of land uses for concentrations of people and jobs that will increase non-automobile transportation;
 3. Identify the location of current and future residential and employment concentrations and activity centers throughout the region.
 4. Refine a regional transportation model which is sensitive to density, mixed use projects, pedestrian travel, bicycle travel, transit, and trip reduction measures;
 5. Develop a comprehensive Regional Transportation Plan which will achieve air quality goals and link destinations throughout the region with appropriate transportation systems; and,
 6. Develop revenue sharing measures and other incentives to promote local land use and transportation planning that is consistent with the agreed regional approach.

(PLANNING, PUBLIC WORKS, SACOG, OTHER CITIES AND COUNTIES IN THE REGION, CALTRANS, REGIONAL TRANSIT)

TRANSPORTATION SYSTEM FUNDING AND EXPENDITURES

- CI-3. Policy: Sacramento County shall continue to seek secure financing for all components of the transportation system through the use of special taxes, assessment districts, developer dedications, or other appropriate mechanisms with an emphasis on expanding and operating the transit system, improving pedestrian and bicycle alternatives, increasing the use of clean alternative fuel and low emission vehicles, and maintenance of the road system.
- CI-4. Policy: Require full and accurate analysis of all alternatives for public transit, including expanded bus service, private carrier operations, road capacity improvements, and rail transit, prior to committing funds for construction. Evaluation shall specifically include full social and economic costs and benefits, as well as net system effects and per-new-rider costs.

Discussion: Funding for both roads and transit has been severely limited in recent years. Continued effort is needed to assure that funds are available to construct new roads when necessary, to maintain the existing road system, to improve clean alternative transportation, and especially to expand and operate the transit system outlined in this Element. To assure funds are spent on the best projects, expenditures for major projects should follow a careful alternatives analysis.

Local projects should be consistent with local priorities. Sacramento County should not yield to the enticement of state or federal funding which would go towards projects within the county that are inconsistent with local goals. Consistency with regional goals should be assured through the development of a unified regional approach as outlined in Policy CI-2 and the resultant feedback to local priorities.

Implementation:

- A. Develop fee structures that assure new development will bear the full cost of unavoidable road improvements that are made necessary due to the development and that are not covered by other funding sources.

(PUBLIC WORKS, PLANNING)

- B. Participate in the development of an allocation process for Proposition 108 and 111 funds which maximizes revenues for transit.

(PLANNING, PUBLIC WORKS, REGIONAL TRANSIT, CALTRANS, SACOG)

- C. Develop and implement a County Service Area (CSA) fee or other mechanism to support Regional Transit operations and maintenance.

(PUBLIC WORKS, PLANNING, REGIONAL TRANSIT)

2. The transportation system components necessary to mitigate those impacts;
3. The full lifetime costs of those transportation system components, including construction, operation, and maintenance; and
4. The costs covered by established funding sources.

(PUBLIC WORKS, PLANNING, SACOG, OTHER CITIES AND COUNTIES IN THE REGION, CALTRANS, REGIONAL TRANSIT)

- B. Develop a fee ordinance to recover transportation system costs from new development (based upon all trips produced rather than trips exceeding design capacity), with a priority to the mode that will fill the greatest need with the least impact.

(PUBLIC WORKS, PLANNING, CALTRANS, REGIONAL TRANSIT)

TRANSPORTATION CORRIDORS

- CI-10. **Policy:** Sacramento County shall promote and support the network of Transportation Corridors as designated on the Transportation Plan accompanying this Element.

Discussion: The Transportation Corridor network depicted on the Transportation Plan represents the backbone of this General Plan. A pattern of intense land uses will be coordinated with this network, offering residents of the county a fully functional transit alternative, and offering transit operators the levels of ridership which will support their services. Regional Transit will benefit from funding enhancements which will provide sufficient revenues to purchase, construct, and operate an expanded transit system which will include high quality service in these Transportation Corridors.

Implementation:

- A. Develop a strategic plan for public transportation which includes:
 1. Goals for market penetration;
 2. Procedures to achieve those goals;
 3. Plans for individual jurisdictions; and,
 4. Funding mechanisms.
- B. Develop transit service standards for areas within designated Transportation Corridors that are consistent with the requirements of this Element and the Land Use Element.

- C. Develop and implement a County Service Area fee or other mechanism to assist in the funding of transit operations and maintenance.
- D. Cooperate with Regional Transit so that facilities for transit are included in road projects in Transportation Corridors.
- E. Increase development density in Transportation Corridors as high quality transit service is developed.
- F. Review development proposals in Transportation Corridors to assure that they are designed to facilitate transit.
- G. Refer all projects that have residential or employment densities suitable for transit services, locations along planned transit corridors, or that otherwise have the potential for transit orientation, for review by Regional Transit and incorporate that agency's comments into the staff analysis.
- H. Explore the feasibility of a transit-only crossing of the American River between Watt Avenue and Sunrise Boulevard, amend the Transportation Plan as appropriate, and develop funding mechanisms for facility construction as necessary.

(PLANNING, PUBLIC WORKS, CALTRANS, REGIONAL TRANSIT)

LAND USE AND TRAVEL DEMAND

- CI-11. **Policy:** Sacramento County shall reduce automobile travel demand by promoting mixed use development throughout the County, including the development of neighborhood support commercial services in areas that are primarily residential.

Discussion: Dramatic improvements in pedestrian and transit travel are possible by concentrating well designed high intensity mixed use developments along Transportation Corridors. Desirable, if lesser, improvements in non-automobile travel are possible by applying these same design and land use concepts on a lesser scale wherever possible. Even those automobile trips that remain will tend to be shorter if residential, employment, and support commercial services are brought closer to one another. This policy calls for the introduction of an appropriate mix of uses into neighborhoods throughout the county if it will help reduce automobile travel demand. Additional policies in the Land Use Element address the link between land use and transportation demand.

Implementation:

- A. Conduct a study to:
 - 1. Identify those areas of the county which will benefit from the introduction of a better balance of land uses;

2. Examine infill opportunities in those areas which can appropriately accommodate land uses which are: undersupplied in that area, likely to reduce automobile travel demand, and compatible (not identical) with the surrounding neighborhood; and,
3. Develop incentives and other measures to promote the appropriate development of these opportunities.

(PLANNING)

- B. Adopt and implement the incentives and measures developed in the study outlined above.

(PLANNING)

- C. Monitor the success of this program at reducing automobile travel demand and develop and implement additional strategies as necessary.

(PLANNING, PUBLIC WORKS)

CI-12. Policy: Sacramento County shall support the implementation of transportation control measures in order to meet the performance standards of the California Clean Air Act.

Discussion: Managing transportation demand through a variety of Transportation Control Measures (TCMs) is critical to the success of this General Plan. The TCMs covered by this policy have been targeted for priority implementation in the Air Quality Attainment Plan developed by the Sacramento Metropolitan Air Quality Management District. Their implementation will further the air quality goals and policies of this General Plan.

Implementation:

- A. Support the Air Quality Management District and other agencies in the implementation of the Near Term Transportation Control Measures outlined in the Air Quality Attainment Plan.

(AQMD, SACRAMENTO COUNTY, CITIES, SACOG, REGIONAL TRANSIT, CALTRANS, TMAs, AIR RESOURCES BOARD, SACRAMENTO RIDESHARE, AND EMPLOYERS)

TRANSIT LIFELINE

- CI-13. Policy: Sacramento County shall support a minimum level transit service in suburban areas of the county that do not have the densities to generate sufficient ridership to justify high quality transit service so that transit dependent residents of those areas are not cut off from community services, events, and activities.**

Discussion: This policy provides a lifeline for transit dependent residents of lower density suburban areas who would otherwise be effectively cut off from the community.

Implementation:

- A. Develop transit service standards for low density neighborhoods with good road systems.

(SACRAMENTO TRANSPORTATION AUTHORITY, PLANNING, PUBLIC WORKS, REGIONAL TRANSIT)

- B. Provide subsidies to Regional Transit and Paratransit to operate service to transit dependent individuals who live in low density communities in the urban area.

(BOARD OF SUPERVISORS)

DESIGN STANDARDS

- CI-14. Policy:** Sacramento County shall utilize design and development standards which support travel by transit, walking, bicycling, and clean alternative fuel and low emission vehicles.

Discussion: The previous policies serve to match high density land uses and high quality transit service so that they can compliment each other. This policy reflects the fact that good location can be undermined by bad project design. Pedestrian and bicycle travel can be impossible even when distances are short if walls, freeways, buildings, or uncomfortable spaces block passage. The location of alternative fuels "filling stations" should be considered carefully. If they are not provided in a convenient manner they will not be used. Chargers for electric cars should also be considered in the design of new development.

Implementation:

- A. Apply the policies and implementation measures in the Land Use Element which relate to transit oriented development.
- B. Update and maintain the County guidelines for development near transit facilities.
- C. Apply the concepts contained in the Transit-Oriented Development Design Guidelines wherever development is proposed along Transportation Corridors.
- D. Provide for bicycle and pedestrian ways that are sufficiently separated from automobile traffic to improve safety and comfort.

- F. Through discussion with project applicants and conditions placed on new development, facilitate non-vehicular access between residential areas, commercial areas, employment centers, and transit facilities.
- F. Provide facilities to support and encourage the use of clean alternative fuel and low emission vehicles and multi-occupant vehicles such as charging stations for battery-powered feeder buses, dedicated lanes for electric commute cars, etc.
- G. Study the air quality benefits and feasibility and timing of implementing an equitable paid parking program for new and existing office and retail parking lots.
- H. Analyze a modification to the Zoning Code that eliminates minimum parking standards and adopts maximum parking standards, including a schedule for gradual reduction of the maximum parking standards where transit is a viable alternative.

(PLANNING, PUBLIC WORKS, REGIONAL TRANSIT, SMUD)

- CI-15. **Policy:** Sacramento County shall continue to provide for the mobility of individuals whose access to automobile transportation is limited by age, illness, income, desire, or disability.

Discussion: One effect of low density development and an automobile transportation system is that people who do not drive cars have a difficult time getting around the community. This policy calls for Sacramento County to continue to build alternative transportation systems for people who do not drive. This policy fits well with other policies promoting non-automobile transportation and well-designed mixed use development where pedestrian, bicycle, or wheelchair travel is facilitated.

Implementation:

- A. Develop and implement design standards which offer improved safety and accessibility for individuals with disabilities or limited walking ability which include crosswalks, curb cuts, wide sidewalks, grass buffers, adequate signal duration, well marked guide strips, and audible signals for the visually impaired.
- B. Support Regional Transit and Paratransit in their efforts to provide transit access to disabled individuals.
- C. Utilize density and design concepts to improve non-automobile access for all individuals as outlined in this Element, the Land Use Element, and the Transit-Oriented Development Design Guidelines.
- D. Develop additional measures to fund accessibility improvements.

(PUBLIC WORKS, PLANNING)

- CI-16. Policy: Sacramento County shall implement a program to buffer land uses from each other and transportation system facilities which is effective, aesthetically pleasing, and minimizes the amount of land lost to buffers.

Discussion: Traditional land use planning and design standards have buffered transportation facilities and different types of land uses with large expanses of vacant or landscaped property. This consumes land not otherwise required for development, lowers overall densities, and works against pedestrian and transit access. This policy calls for a program to reduce this loss of land, while still providing appropriate buffering for noise and other nuisances.

Implementation:

- A. Develop and implement a program of alternative buffering measures in those areas of the county where reduced buffers are appropriate to achieve other goals.

(PLANNING, PUBLIC WORKS, ENVIRONMENTAL MANAGEMENT, ENVIRONMENTAL REVIEW AND ASSESSMENT)

CONGESTION MANAGEMENT

- CI-17. Policy: Sacramento County shall participate in the preparation and implementation of a Congestion Management Plan (CMP) consistent with legal requirements which gives priority to air quality goals, alternatives to automobile travel, and the development of demand reduction measures over additional road capacity.
- CI-18. Policy: Sacramento County shall develop a broad range of demand reduction measures designed to induce efficient use of existing roads, bridges, and parking facilities. Implementation measures may include congestion pricing for roads, bridge tolls, revised parking fees, and other user charges.
- CI-19. Policy: Recommend consideration of a freeway service patrol to lessen peak-hour congestion. Financing should be drawn from road user charges or gas taxes.
- CI-20. Policy: Investigate the feasibility of regulations that would require employers to offer employees the choice of either subsidized parking or a cash transit subsidy.
- CI-21. Policy: Incorporate preferential consideration for buses and private HOVs at strategic congestion points (such as bridges and on-ramps) directed at discouraging drive-alone commuting.

Discussion: Local Congestion Management Plans are required before some of the funds created by Propositions 108 and 111 can be disbursed to local governments. There are two primary ways to address traffic congestion: provide additional road capacity or reduce the demand for automobile travel. These policies require priority be given to travel demand reduction. This is consistent with other policies in this Element which will reduce automobile travel through mixed use development, transit oriented development, and the enhancement of alternatives such as transit.

Many of the policies and implementation measures related to congestion management may also promote transportation alternatives, thereby improving air quality. Disincentives designed to reduce congestion such as road tolls and parking or fuel fees will also make transit more competitive. Disincentives and incentives will be most effective where reasonable transit alternatives are provided.

Implementation:

- A. Designate the Sacramento Transportation Authority as the county Congestion Management Agency (CMA).
- B. Develop a Congestion Management Plan which promotes air quality goals and emphasizes automobile travel demand reduction measures, including those specified in the policies above.

(CALTRANS, ENVIRONMENTAL MANAGEMENT, PLANNING, PUBLIC WORKS)

CI-22. Policy: Sacramento County shall apply the following Level of Service (LOS) standards for planning roads in the unincorporated area:

1. Rural collectors: LOS D
2. Urban area roads: LOS E

and may proceed with additional capacity projects within the scope of the adopted Transportation Plan when the Board of Supervisors has determined that the implementation of all feasible measures which will reduce travel demand in the affected corridor will not provide the target level of service.

CI-23. Policy: New development which results in levels of service which are worse than those standards in CI-20 or the 1993 LOS, whichever is worse, shall not be approved unless traffic impacts are mitigated. Such mitigation may be in the form of:

1. Capacity improvements to either the roadway system, the transit system, or both, or
2. Demand reduction measures included in the project design, or operation, or both.

Discussion: The pressure to make the maximum use of any public investment must be balanced with standards for a reasonable level of service. Road capacity within Sacramento County should be utilized to the fullest extent that is acceptable. This policy sets limits to the congestion that is the inevitable result of high capacity utilization. When a road segment reaches these congestion levels, measures should be implemented to reduce the demand for automobile travel affecting that segment.

Implementation:

- A. Develop and implement a county-wide system of ramp metering, signal timing, and other minor improvements to the road system to facilitate the flow of traffic in order to reduce air emissions and make the maximum use of available capacity.

(PUBLIC WORKS, CALTRANS, CITY OF SACRAMENTO ENVIRONMENTAL MANAGEMENT, CONGESTION MANAGEMENT AGENCY, PLANNING, ENVIRONMENTAL REVIEW AND ASSESSMENT)

- B. Consistent with air quality goals and the Congestion Management Plan, develop a program which will:

1. Annually evaluate the level of service provided by the road system shown on the Transportation Plan;

(PLANNING, PUBLIC WORKS)

2. Develop and implement demand reduction measures for those road segments not meeting the LOS standards in the policy above;

(ENVIRONMENTAL MANAGEMENT, PLANNING, PUBLIC WORKS)

3. Monitor the success of existing demand reduction programs; and,

(ENVIRONMENTAL MANAGEMENT)

4. Design and construct road improvements that are consistent with air quality programs which will bring levels of service within the standards outlined above.

(PUBLIC WORKS, PLANNING, ENVIRONMENTAL MANAGEMENT)

HIGH OCCUPANCY VEHICLE LANES

- CI-24. Policy: Sacramento County shall support a program to develop a regional network of High Occupancy Vehicle (HOV) Lanes throughout the urban area that includes provisions to designate existing mixed flow lanes for HOV use.

Discussion: HOV lanes have a significant potential to increase the effective carrying capacity of the existing road network by increasing the number of individuals in each vehicle. This benefits air quality, road funding programs (since HOV lanes can be created from existing lanes), and transit operations (since transit vehicles may also use HOV lanes). The traditional CALTRANS policy to never take an existing lane for an HOV lane is outdated. That CALTRANS policy would allow HOV lanes only when they are newly constructed, but new construction is only an inducement to additional automobile travel which will worsen congestion and air quality. Providing HOV lanes by redesignating existing lanes can also yield a comprehensive HOV network at a much lower cost than new construction.

Implementation:

- A. Develop a program for high occupancy vehicle (HOV) lanes to provide exclusive rights-of-way to carpool and transit vehicles that includes:
1. A network of freeway and surface street HOV lanes that connects major automobile traffic generators;
 2. A program for redesignating existing lanes to HOV status;
 3. Provisions to coordinate the HOV program with congestion management and air quality programs;
 4. Provisions for increasing required minimum vehicle occupancy rates as HOV traffic volume approaches the capacity of HOV network links; and,
 5. Education and enforcement to promote the best utilization of the HOV network.
 6. A network of freeway and surface street HOV lanes that provides continuous facilities whenever possible.

(PLANNING, PUBLIC WORKS, SACOG, CALTRANS, ENVIRONMENTAL
MANAGEMENT, CALIFORNIA HIGHWAY PATROL, SHERIFF)

TRUCK FREIGHT SERVICE

- CI-25. Policy: Sacramento County shall regulate truck travel as appropriate for the transport of goods, consistent with circulation, air quality, congestion management, and land use goals.

Discussion: Truck freight hauling serves an important function in the economy and contributes a significant proportion of the vehicles on the road system. Truck traffic is expected to increase over the next two decades. The County will consider truck transportation needs when designing transportation corridors, alleviating traffic congestion, and improving air quality. This policy aims to meet the needs of truck traffic in a manner consistent with matching land use and the transportation

system. Truck travel causes extensive road wear, air and noise pollution, and hazards to pedestrians, bicycles and light vehicles. Facilitating additional transit, bicycle, and foot travel will not be as effective as possible if the hazards caused by trucks are not reduced. The land use patterns which help facilitate alternative transportation modes must meet the needs of truck traffic to supply businesses and industries with goods and materials in a timely manner.

Implementation:

- A. Develop transportation design standards which minimize truck traffic interference with transit, bicycles, and foot traffic in transportation corridors.

(PUBLIC WORKS, PLANNING, REGIONAL TRANSIT)

- B. Study and implement truck route and delivery schedule restrictions to reduce through traffic during peak hours.

(PUBLIC WORKS, PLANNING)

- C. Provide curbside loading spaces during appropriate hours with parking enforcement through the office of the California Highway Patrol.

(PUBLIC WORKS, PLANNING, CALIFORNIA HIGHWAY PATROL)

- D. Develop design standards which minimize truck traffic in TODs but still provide necessary truck access to TOD core areas.

(PUBLIC WORKS, PLANNING)

- E. Support Federal and State efforts to levy higher user charges for mitigating truck transportation impacts.

(SACOG)

RAILROAD FREIGHT AND PASSENGER SERVICE

- CI-26. Policy: Sacramento County shall support the development of multimodal centers with passenger facilities for heavy rail, light rail, and bus.

Discussion: Providing a balanced and integrated transportation system will require additional facilities for heavy rail and links between heavy rail, light rail, and buses. Heavy rail provides transit service between relatively distant cities, while light rail and buses provide service between close cities and within a city. Connecting intercity and intracity service increases the availability and convenience of the transportation system.

Implementation:

- A. Investigate and encourage the use of intercity heavy rail passenger service and the development of a multimodal transportation system.

(PLANNING, PUBLIC WORKS, SACOG, CALTRANS, OTHER COUNTIES AND CITIES IN THE REGION, REGIONAL TRANSIT)

- B. Support the integration of transit with the regional rail system by protecting right-of-way and establishing intermodal links.

(PLANNING, REGIONAL TRANSIT, PUBLIC WORKS)

- C. Provide accessibility to people with disabilities or limited mobility while designing multimodal transportation facilities.

(PUBLIC WORKS, PLANNING, REGIONAL TRANSIT)

CI-27. Policy: Sacramento County shall integrate railroad freight services into regional transportation and economic strategies.

Discussion: This policy is directed at improving heavy rail transportation services, creating more efficient land use patterns, enhancing the suitability of industrial lands for development, and improving rail demand. Railroad freight service is a vital way of moving goods. Land use policies will improve the economic viability of rail freight and industries which use this form of transporting goods and materials.

Implementation:

- A. Investigate and encourage the use of heavy rail for interurban transport of goods and materials.

(PLANNING, SACOG)

- B. Participate in regional coordination efforts to assure that land use and transportation plans are integrated with rail development plans.

(PLANNING, SACOG, REGIONAL TRANSIT)

- C. Develop policies which create appropriate land use districts adjacent to the railroad network. Designate zoning for industries which will benefit from the proximity to a central or spur line.

(PLANNING)

PORTS

CI-28. Policy: Sacramento County will consider the Port of Sacramento's function in the transportation of goods and materials and its regional economic significance.

Discussion: The Port of Sacramento is significant to the regional agricultural, timber, and mineral economies. Local and regional land use and transportation planning could potentially impact these economies.

Implementation:

- A. Encourage water transport of goods and materials.

(PLANNING)

- B. Evaluate the potential impacts on Port functions while engaging in local and regional land use and transportation planning.

(PLANNING, PORT AUTHORITY, SACOG)

- CI-29. Policy: Sacramento County shall support the integration of public and recreational space with the development of Port facilities.

Discussion: The public enjoys activities near bodies of water. People enjoy recreational activities involving water, and waterside restaurants and retail shops are also popular attractions. This policy is directed at allowing limited public access for these activities.

Implementation:

- A. Support limited public access in the form of recreation facilities, open space, and restaurant and retail shop space.

(PLANNING, PORT AUTHORITY)

AIRPORTS

- CI-30. Policy: Sacramento County will encourage approach and departure flight patterns that do not cross over the urban area.

Discussion: This policy aims at reducing noise pollution and improving public safety by rerouting approach and departure patterns, even those outside the airport environment. Regional air traffic considerations and local land use patterns are additional issues of concern.

Implementation:

- A. Study and implement appropriate changes in flight arrival and departure routes to eliminate those passing over the urban area.

(AIRPORTS, AIRLINES, FAA, PLANNING)

- CI-31. Policy: Sacramento County shall plan for airport expansion and the protection of airports from the encroachment of incompatible uses through land use and transportation planning.

Discussion: This policy is directed at preventing future conflicts between airport operations and nearby land uses. Ample land must buffer the airports to maximize public safety and ensure minimum interference with airport functions. Nearby lands must also allow compatible uses for complementary industries. The future will bring growth in the demand for air travel. Careful planning is essential to meet the needs of the growing commercial and general aviation services with minimal impact to the community.

Implementation:

- A. Prepare a plan for all airports in the region which identifies long-range development objectives and consider environmental and land use issues.

(AIRPORTS, SACOG, PLANNING)
- B. Periodically report on the status of key assumptions in the regional airport plan, individual airport master plans, and related land use and transportation plans.

(AIRPORTS, PLANNING)
- C. Periodically update Master Plans within the County's jurisdiction and Comprehensive Land Use Plans (CLUPs) for all public use airports.

(AIRPORTS, PLANNING)
- D. Allow for transit right-of-way with direct access to terminal facilities when developing airport facility plans and CLUPs.

(AIRPORTS, PLANNING, REGIONAL TRANSIT)
- E. Buffer lands immediately surrounding airports should be reserved as open space, agricultural or other compatible uses as consistent with CLUPs.

(PLANNING)
- F. Prohibit inherently incompatible land uses near airfields, encourage appropriate antenna farm designations, and discourage random placement of individual antenna structures.

(PLANNING)
- G. Develop incentives to prevent the closure of privately owned public use airports.

(AIRPORTS)

- CI-32. Policy: Sacramento County shall comply with the intent of the recommendations in the Comprehensive Land Use Plans (CLUPs) for airport environs by restricting in the vicinity of airfields those land uses which are inherently incompatible with airfield operations, based upon the following performance standards:
- A. Uses which release into the air any substance which would impair visibility or otherwise interfere with the operation of aircraft, such as, but not limited to, steam, dust, and smoke.
 - B. Uses which produce light emissions, either direct or indirect (reflective), which would interfere with pilot vision.
 - C. Uses which produce electronic emissions which would interfere with aircraft communication systems or navigational equipment.
 - D. Uses which would attract birds or waterfowl, such as, but not limited to, operation of sanitary land fills, maintenance of feeding stations, or growth of certain vegetations.
 - E. Uses which extend into the air within ten feet of the approach-departure surfaces and/or transitional surfaces.

Discussion: This policy affirms Sacramento County's desire to prevent conflicts between airport operations and nearby land uses, as well as the right to modify Comprehensive Land Use Plans (CLUP's) and make them consistent with the General Plan. This right is restricted to modifications that comply with the intent of the CLUP.

Implementation:

- A. Assist the Airport Land Use Commission (SACOG, acting as ALUC) in the preparation and adoption of CLUPs which protect land uses and airport operations.
- B. Incorporate original or modified CLUPs into Sacramento County plans and ordinances that are consistent with the intent of Airport Land Use Law.

(AIRPORTS, PLANNING, SACOG)

- CI-33. Policy: Sacramento County will support the expansion of transit service to and within commercial airports.

Discussion: This policy calls for continued expansion of alternative transportation modes for all people. Additional consideration should be given to the young, old, ill, poor, and disabled, who currently do not have easy access to and within commercial airports.

Implementation:

- A. Study and implement extensions to transportation service programs, giving special design consideration to the needs of the disabled.

(PLANNING, REGIONAL TRANSIT, PARATRANSIT)
- B. Design airport facilities with a consideration of improved safety and accessibility for persons with disabilities or limited mobility.

(AIRPORTS, PUBLIC WORKS)
- C. Investigate and implement alternative transportation within airports.

(AIRPORTS)

INTERCITY BUSES

- CI-34. Policy:** Sacramento County shall continue to support intercity bus transportation and intermodal links with the downtown bus terminal.

Discussion: Intercity bus transportation provides a valuable service which reaches major cities and small communities. The existing Greyhound Lines terminal in downtown Sacramento provides excellent linkages to local bus routes, light rail, AMTRAK, and Metro Airport. This intercity service and the linkages available at the downtown terminal should all be supported.

Implementation:

- A. Support intercity bus service in Sacramento, foster intermodal linkages with this service, and support the retention of a terminal at or near the existing Greyhound terminal.

(GREYHOUND LINES, CITY OF SACRAMENTO, PLANNING, REGIONAL TRANSIT, AMTRAK)

BICYCLING

- CI-35. Policy:** Sacramento County shall expand the funding base for constructing and maintaining bicycle ways and facilities, including the Bikeways Master Plan which is hereby incorporated into this General Plan.

Discussion: Sacramento County shall improve opportunities for bicycle use through increasing funding sources and the bicycle network. Sacramento County will revise the regional Bikeways Master Plan in light of the General Plan's changes in land use patterns and the need to bring established routes up to state standards. Additionally, the bicycle

network for recreational use and for basic transportation will be improved. Reliable funding will be developed to implement the Bikeways Master Plan and other improvements to this key component of the transportation system.

Implementation:

- A. Prepare and adopt revisions to the Bikeways Master Plan subsequent to adoption of the General Plan.

(PUBLIC WORKS, PLANNING)

- B. Adopt design standards and facility requirements for mixed land uses and transportation modes including the provision of incentives to mix modes of travel, such as bicycle lockers at transit stops.

(PUBLIC WORKS, PLANNING)

- C. Develop means to augment Transportation Development Act funds.

(PUBLIC WORKS)

- D. Provide an annual report on the disposition of bicycle program funds to the Board of Supervisors.

(PUBLIC WORKS)

- E. Study and implement programs to improve safety and convenience through off-street and on street bicycle facilities with overpasses, underpasses, and green belt paths.

(PLANNING, PUBLIC WORKS)

- F. Encourage Regional Transit to develop the means to allow bicycles on transit during the commute period.

(PLANNING, REGIONAL TRANSIT)

MONITORING

- CI-36. **Policy:** Sacramento County shall monitor the development and implementation of the programs and measures detailed in this Element, and make revisions to standards, programs, and this document as necessary to continue to provide the best transportation system possible within the constraints of funding, congestion, and air quality impacts.

Discussion: No planning document can be prepared with perfect knowledge about future conditions. This is especially true when a document is as innovative as this General Plan and covers new policy territory which may fundamentally alter the nature of the community. This Circulation Element should be evaluated and modified if required by changing circumstances.



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Implementation:

- A. Monitor the effectiveness of the Regional Transportation Plan through travel surveys, traffic counts, mode split analysis, air quality measurements, and discussions with other jurisdictions.

(PLANNING, PUBLIC WORKS, SACOG, SACOG REGION JURISDICTIONS, CALTRANS, REGIONAL TRANSIT)

- B. Monitor the validity of assumptions used in transportation modelling for the Sacramento area by compiling land use, employment, and population data and develop new assumptions when necessary.

(PLANNING, PUBLIC WORKS, SACOG)

- C. Create an annual review process utilizing data derived from monitoring to assess the need to amend this General Plan.

- D. Revise this General Plan as necessary.

(PLANNING, PUBLIC WORKS, REGIONAL TRANSIT)

UTILITIES

Policies, implementation measures, and background discussion regarding the circulation aspects of public utilities are included in the Public Facilities Element of this General Plan.

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